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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

FEB 06 2012

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Doug Emerich, EHS Manager  
Exide Technologies, LLC  
3639 Joy Road  
Columbus, Georgia 31906

SUBJ: Resource Conservation and Recovery Act Compliance Evaluation Inspection  
Exide Technologies, LLC  
EPA ID No.: GAD 070 330 576

Dear Mr. Emerich:

On September 29, 2011, the U.S. Environmental Protection Agency conducted an EPA-lead Compliance Evaluation Inspection (CEI) at Exide Technologies, LLC, in Columbus, Georgia, to determine the facility's compliance status with the Resource Conservation and Recovery Act (RCRA).

Enclosed is a copy of the CEI report which indicates that apparent violations of RCRA were discovered. A copy of this report has been forwarded to the Georgia Environmental Protection Division (GAEPD).

If you have any questions regarding this matter, please contact Alan Newman, of my staff, by phone at (404) 562-8589 or by email at [newman.alan@epa.gov](mailto:newman.alan@epa.gov).

Sincerely,

Larry Lamberth, Chief  
South Enforcement and Compliance Section  
RCRA and OPA Enforcement and  
Compliance Branch

Enclosure

cc: Andrea Leeth, GA EPD w/encl.  
Mark Smith, GA EPD w/encl.



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CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Mark Smith, Chief  
Hazardous Waste Management Branch  
Environmental Protection Division  
Georgia Department of Natural Resources  
Two Martin Luther King, Jr. Drive  
Suite 1154 East  
Atlanta, Georgia 30334

SUBJ: Resource Conservation Recovery Act (RCRA) Compliance Evaluation Inspection (CEI)  
Exide Technologies

Dear Mr. Smith:

On September 29, 2011, the U.S. Environmental Protection Agency conducted a RCRA inspection at the Exide Technologies, in Columbus, Georgia, to determine the facility's compliance status with RCRA and the Georgia Hazardous Waste Management Act. Enclosed is the EPA RCRA Inspection Report, which indicates that violations of RCRA were discovered.

If you have any questions regarding the inspection, please contact Alan Newman, of my staff, by phone at (404) 562-8589, or by email at [newman.alan@epa.gov](mailto:newman.alan@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Lamberth".

Larry Lamberth, Chief  
South Enforcement and Compliance Section  
RCRA and OPA Enforcement and  
Compliance Branch

Enclosures

## RCRA Inspection Report

### 1) **Inspectors and Authors of the Report**

Alan Newman  
Environmental Engineer  
newman.alan@epa.gov  
(404) 562-8589

RCRA and OPA Enforcement and Compliance Branch  
US EPA Region 4 AFC – 10<sup>th</sup> Floor  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

### 2) **Facility Information**

Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906  
Muscogee County  
EPA ID No.: GAD 070 330 576

### 3) **Responsible Official**

Mr. Doug Emerich, EHS Manager  
(706) 685-7930

### 4) **Inspection Participants**

Doug Emerich	Exide Technologies
Sherin Peter	GAEPD
Andrea Leeth	GAEPD
Alan Newman	US EPA Region 4

### 5) **Date and Time of Inspection**

September 29, 2011, at 9:30 am EST

### 6) **Applicable Regulations**

Sections 3002, 3005, and 3007 of the Resource Conservation and Recovery Act (RCRA), (42 U.S.C. §§ 6922, 6925 and 6927), and the regulations promulgated pursuant thereto and set forth at 40 C.F.R. Parts 260 through 268, 270, 273 and 279. The Georgia Hazardous Waste Management Act, O.G.C.A. §§ 12-8-60 to 83 Chapter 391-3-11 of the Georgia Hazardous Waste Management Rules (GHWMR). Permit No. HW-057(STD)-2.



7) **Purpose of Inspection**

The purpose of this inspection was to conduct an unannounced RCRA compliance evaluation inspection (CEI) to determine the facility's compliance with the applicable regulations.

8) **Facility Description**

Exide Technologies Inc. (Exide) located in Columbus, Georgia, Muscogee County, manufactures lead-acid batteries and is a large quantity generator of hazardous waste. The facility has been in operation since 1961 and currently operates under Hazardous Waste Permit Number HW-057(STD)-2. Exide is permitted for four container storage areas, 16 storage tanks, seven treatment tanks, 13 miscellaneous units used for other treatment, and two waste piles closed as a landfill. Exide is permitted for 957,000 gallons of hazardous waste container storage and 588,800 gallons of tank storage in 16 hazardous waste storage tanks. Exide initially notified as a large quantity generator on February 26, 1990. Exide employs approximately 173 workers operating three shifts, five days a week. Exide produces approximately 2,200 to 2,400 batteries per day. The facility encompasses approximately 43 acres.

Exide also owns a lead reclamation facility that has been shut down since October 1999. Most of the permitted units are not active and do not contain or accumulate hazardous waste. Exide ships two truckloads of site generated lead waste to another Exide facility in Frisco, Texas for reclamation.

9) **Previous Inspection History**

On September 29, 2009, and August 19, 2010, GAEPD conducted CEIs at Exide. There were violations noted with these CEIs including failure to maintain aisle space, failure to conduct inspections at the casting area, failure to maintain signed LDR notification forms for six manifests, failure to train all employees, and failure to maintain adequate inspection records for the Wastewater Treatment area.

10) **Findings**

After presenting their credentials to Doug Emerich and explaining the purpose of the inspection, the inspectors requested a tour of the facility. The inspectors performed a walk-through inspection of the facility. The following is a description of the observations made during the walk-through.

For the permitted smelter at the facility, the facility contact stated that the smelter continues to be offline as of 1999 and all tanks and treatment areas have been cleaned of all waste. The unit is still capable of starting up but there are no plans at the present to continue smelting at this location. There have been no shipments of hazardous waste from offsite since 1999; there has been no treatment or storage of hazardous waste at the facility other than site generated hazardous waste.



- Trash Bins throughout the Facility

The inspection team noted that each trash bin at the facility was labeled with a hazardous waste label and dated. These wastes containers are for personal protective equipment (PPE) that are placed into the roll-off box next to the waste water treatment plant (WWTP). One was dated September 8, 2011. Exide generally dates every container on site as a hazardous waste container but manages many of the satellite containers.

- Exterior of Building 1 and Interior of Building 5

The inspection team toured the exterior of Building 1 and was able to see the tanks that were formerly used for hazardous waste storage were empty and open, and the base. Facility personnel stated that there were no operations or storage activities in Building 1. The team proceeded to Building 5 and noted storage of some equipment and raw materials including chemicals. The floor of this building acts as a cap for two closed hazardous waste piles that were closed as hazardous waste landfills. These two units are in post closure. The cap was in good condition and showed no cracks or gaps. There was no waste stored in this building. There were no violations noted with the former permitted areas in Building 1 or with Building 5.

- Less-than-90-day Hazardous Waste Storage Area near the Waste Water Treatment Plant

The facility treats wastewaters generated during the battery charging operations. The inspection team noted two roll-off containers for non-hazardous wastewater treatment sludge; facility personnel stated that that these will be sent to Salem Landfill in Alabama. There were three less-than-90-day hazardous waste roll-off containers in the southeast corner of the site used to accumulate PPE, piping, tarps, and plastic pipe with up to 10% soils. Two of these containers were dated 9/1/2011 and the other was dated 9/15/2011. There were no violations noted in this area.

- Building #2: Lead Oxide Plant and Oxide Less-than-90-day Hazardous Waste Storage Area

Lead oxide, which is used to create the paste used on battery plates, is produced in the Lead Oxide Plant via the Barton Pot Process. Lead ingots are first melted and then fed into a vessel or pot, where the molten lead is rapidly stirred and atomized into small droplets. The droplets of molten lead are then oxidized by air drawn through the pot and conveyed to a product recovery system which typically consists of a settling chamber, cyclone, and bag house. A hammer mill is used to correctly size the lead oxide. Exide was accumulating PPE (D008) in a 55-gallon container in this area. The container was in good condition, properly labeled, and dated September 29, 2011. This container had a lid that was sitting on top of the container but was not fastened to the container. The lid was heavy, appeared to have a constant seal with the rim of the container. Exide was managing another container as a less-than-90-day hazardous waste storage area. This area held one 55-gallon container that was in good condition, properly labeled, and dated August 25, 2011. This container was open on the day of the inspection. This lid was not properly closed. Exide personnel stated that this container was only half full but had reached or exceeded the maximum weight capacity of the container, 880 pounds.

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1), which incorporates GHWMR Chapter 391-3-11-.10(1) (40 C.F.R. § 262.34(a)(1)(i), which incorporates 40 C.F.R. § 265.173(a)). This regulation requires that containers holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.**

The bag house associated with this process was located just outside the building. Exide utilized a 55-gallon container to catch the waste from the bag house. This container was housed in an unsecured metal cabinet and dated September 21, 2011. This material was reportedly too fine to be reused onsite so it is shipped off-site for recycling. Some waste bag house dust was observed at the base of the accumulation container. Exide personnel stated that they checked this area weekly and they would clean up a spill of waste when the container is full and is being moved to less-than-90-day storage. This practice is unacceptable because hazardous waste must be stored appropriately. Once Exide notices a spill of hazardous waste, a cleanup of the spill should be initiated to minimize the spread of the material due to environmental factors (wind or rain). Additionally, since this container is in an unsecured cabinet and on a vehicle thoroughway of the facility, it does not appear to be under the control of the operator.

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(c)), which states that a generator may accumulate as much as 55 gallons of hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(a)). This container does not seem to be under the control of the operator.**

- Building #2: Grid Casting and Casting Less-than-90-day Hazardous Waste Storage Area

Exide melts lead ingots and casts the liquid lead into grids. This process generates hazardous waste solids (D008) and PPE (D008). Wastes are collected in 55-gallon drums and, once full, are moved to the less-than-90-day hazardous waste storage area. The satellite container for PPE in this area was not labeled on the day of the inspection. This container had a heavy cover on top that appeared to have contact all the way around the lip of the container. The cover had a hatch for ease of accumulation.

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(c)(1)(ii)), which states that a generator may accumulate as much as 55 gallons of hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(a)), provided that he marks his**



**containers with the words “Hazardous Waste” or with other words that identify the contents of the containers.**

There were six containers in the casting less-than-90-day hazardous waste storage area that were properly labeled (picture #1). Four of them were dated September 25, 2011; the other two containers were dated September 12, 2011, and September 23, 2011, respectively. Three of the containers had lids that flipped open without any type of closure mechanism. Three of the containers had lids with locking rings that were not closed. All of these containers were open on the day of the inspection. There was not sufficient aisle space in this area. The labels of the containers were not all turned to the outside. It was difficult to read some of the labels because the containers were not turned out.

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1), which incorporates GHWMR Chapter 391-3-11-.10(1) (40 C.F.R. § 262.34(a)(1)(i), which incorporates 40 C.F.R. § 265.173(a)). This regulation requires that containers holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.**

**Exide Technologies appears to have violated a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1), which incorporates GHWMR Chapter 391-3-11-.10(1) (40 C.F.R. § 262.34(a)(4), which incorporates 40 C.F.R. § 265.35). This regulation requires that owners and operators must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility operation in an emergency.**

- **Building #2: Paste Mixing and Plate Pasting**

Exide combined the lead oxide with sulfuric acid to manufacture paste. Some of the paste is tinted with carbon black to create negative paste and some of the paste is tinted red to form the positive paste. Grids are similarly separated. The grids are pressed with paste and cured. The plates are stacked together alternating positive and negative plates to form a group. A fiberglass matt is used as a separator between the oppositely charged pasted grids. The cast on straps for both the positive and negative posts are added to the battery group. Throughout this process, Exide generates waste paste (D008) and waste plates (D008). These wastes are accumulated in multiple satellite accumulation containers throughout these process areas. Some of the drum covers had center flip hatches and an additional hole for ventilation. Exide, as a practice, was using duct tape to seal the holes on these covers. There were two covers that were noted during the inspection where the holes were un-taped and open. Each of these containers was properly labeled and dated. One with an un-taped hole was dated September 28, 2011.

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1), which incorporates GHWMR Chapter 391-3-11-.10(1) (40 C.F.R. § 262.34(c)(1)(i), which incorporates 40 C.F.R. § 265.173(a)). This regulation requires that**



**containers holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.**

The battery groups are subsequently sent to the battery assembly in cases, filled with sulfuric acid, and charged for approximately three days to complete the assembly process.

- **Building 1: Less-than-90-day Hazardous Waste Storage Area**

The less-than-90-day hazardous waste container storage area in the old lead warehouse held nineteen drums of hazardous waste; the oldest date was August 23, 2011. Each container was in good condition, properly labeled, and closed.

- **Building 1: Used Oil Storage Area**

The inspection team noted several drums of labeled used oil on a secondary containment pallet (picture #2). There was some waste in the secondary containment of the pallet and the inspection team asked Exide to remove this used oil. The EPA has determined this to be an Area of Concern. Exide must determine if one of these used oil containers is leaking; Exide may be failing to respond to a used oil leak.

- **Building 1: Universal Waste Lamps and Batteries**

Exide was storing their universal waste lamps (HIDs, four and eight foot lamps) on a shelf (picture #3). The inspection team noted multiple lamps were not containerized. Exide is responsible for storing waste lamps in appropriate containers. The boxes that were being used to store waste lamps in this area were open. Containers of waste lamps are required to be closed. The boxes of lamps present on the day of the inspection appeared to be properly labeled as "waste lamps." Facility personnel stated that all waste lamps are shipped on the shipping date. Exide uses the most recent shipping date to track the time that lamps are on site. Exide's most recent shipment of universal waste lamps was on May 10, 2011.

**Exide Technologies is in apparent violation of GHWMR Chapter 391-3-11-.18 (40 C.F.R. § 273.13(d)(1)), which requires small quantity handlers of universal waste to container any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonable foreseeable conditions.**

**Exide Technologies is in apparent violation of GHWMR Chapter 391-3-11-.18 (40 C.F.R. § 273.14(e)), which requires small quantity handlers of universal waste to mark each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: "Universal Waste-Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)". The lamps that were not in boxes were also not labeled.**

Exide was storing 13 pallets of universal waste batteries at the time of the inspection. These pallets were properly labeled and shrink-wrapped. Facility personnel stated that they use the last

shipping date to demonstrate the accumulation length of time. The most recent shipment of universal waste batteries was on September 26, 2011. It does not appear that all pallets of universal waste batteries were shipped off on the latest shipping date due to the large number of pallets present just three days after the most recent shipment.

**Exide Technologies is in apparent violation of GHWMR Chapter 391-3-11-.18 (40 C.F.R. § 273.15(c)(1)), which requires small quantity handlers of universal waste who accumulated universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.**

- **Hazardous Waste Hoppers and bins**

The inspection team noted two hoppers and one bin of hazardous waste debris labeled with D008 waste code and the words "Hazardous Waste." These containers were not dated; and the two hoppers were open. Each hopper appeared to have greater than 55 gallon capacity, therefore, there was greater than 55 gallons in this satellite accumulation area.

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1), which incorporates GHWMR Chapter 391-3-11-.10(1) (40 C.F.R. § 262.34(c)(1)(i), which incorporates 40 C.F.R. § 265.173(a)). This regulation requires that containers holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.**

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(c)), which states that a generator may accumulate as much as 55 gallons of hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(c)). There appears to be more than 55 gallons stored in this satellite accumulation area.**

- **Other Bag houses**

Facility personnel stated that there were additional bag houses that accumulated waste in either one 55-gallon container or two 55-gallon containers. Facility personnel stated that only a few of these bag houses had the accumulation containers in a cabinet that could be secured. Therefore, it appears that these SAA containers would not be under the control of the operator. Exide must meet the regulations in order to store this waste in satellite containers

**Exide Technologies appears to have failed to adhere to a condition for exemption from O.G.C.A. § 12-8-66 (Section 3005 of RCRA, 42 U.S.C. § 6925), given in GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(c)), which states that a generator may accumulate as much as 55 gallons of hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process**



**generating the waste, without a permit or interim status and without complying with GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.34(c)). These containers do not appear to be under the control of the operator.**

- Maintenance Oil Storage Area

The inspection team noted a cabinet for flammable materials. The bottom of the cabinet appears to hold spilled liquid. The inspection team asked for Exide to conduct an inventory of this cabinet and determine if what was spilled in the bottom of the cabinet and if any materials will no longer be used.

**Exide Technologies is in apparent violation of GHWMR Chapter 391-3-11-.08(1) (40 C.F.R. § 262.11), which requires generators to make a hazardous waste determination on solid wastes at their facilities either by generator knowledge or by analytical testing.**

- Records Review

The inspection team asked to review the following records: the hazardous waste permit, hazardous waste manifests, shipping records for used oil and universal wastes, land disposal restriction notifications, personnel training records, the contingency plan, the waste minimization plan, sludge analysis report, financial assurance documents, and inspection records for less-than-90-day hazardous waste container storage areas. Copies of the permit and financial assurance were not available on the day of the inspection.


**Exide Technologies is in violation of Permit No. HW-057(STD)-2 Permit Condition I. B. 2 (a) and (h). These permit conditions require Exide to maintain a complete copy of the permit and permit application, including all amendments, revisions and modification and the cost estimate for facility closure and post-closure, and closure and post-closure assurance instrument.**

Exide inspects all satellite accumulation areas and less-than-90-day storage areas. The inspection team focused the review on the less-than-90-day hazardous waste storage areas. There were missing inspection reports from January 1, 2011, through May 17, 2011, and May 31, 2011 through July 31, 2011, for the Casting less-than-90-day hazardous waste storage area. There were missing inspection reports from February 11, 2011, April 13, 2011, June 10 and 17, 2011, July 9 and 16, 2011, and August 11, 2011, in the Oxide less-than-90-day hazardous waste storage area. There were missing inspection reports from February 27, 2011, March 21 and 28, 2011, April 4, 2011, June 10 and 17, 2011, and July 8 and 15, 2011, in the maintenance less-than-90-day hazardous waste storage area.

**Exide Technologies is in apparent violation of GHWMR Chapter 391-3-11-.08(1), which incorporates GHWMR Chapter 391-3-11-.10(1) (40 C.F.R. § 262.34(a)(1)(i), which incorporates 40 C.F.R. § 265.174). This regulation requires that a generator must inspect areas where hazardous waste containers are stored at least weekly, looking for leaking containers and for deterioration of containers caused by corrosion or other factors.**

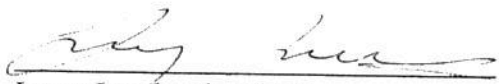


11) **Signed**

  
\_\_\_\_\_  
Alan R. Newman, Inspector

11/31/2012  
Date

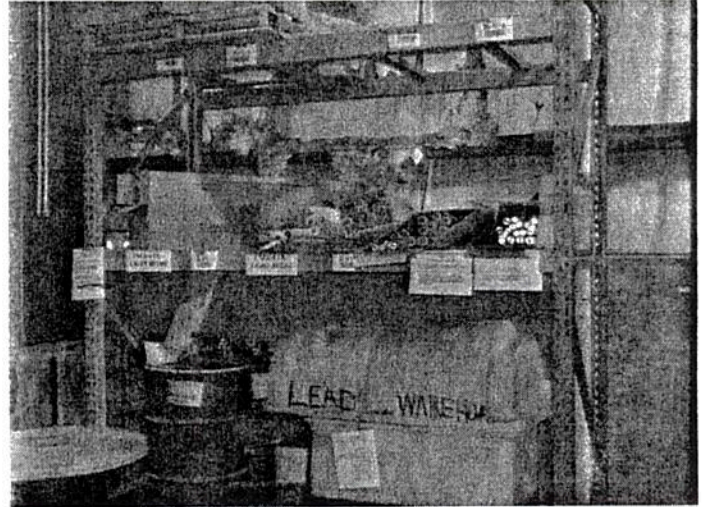
12) **Concurrence**

  
\_\_\_\_\_  
Larry Lamberth, Chief  
South Enforcement and Compliance Section  
RCRA and OPA Enforcement and Compliance Branch

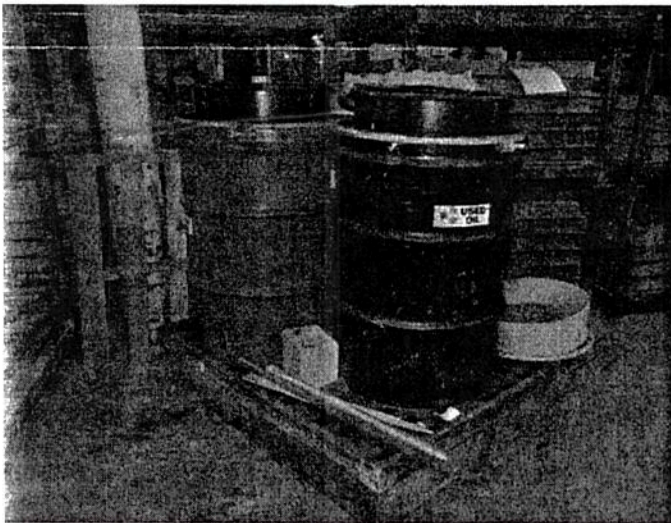
02/02/12  
Date



Picture 1 – Casting Less-than-90-Day Storage area



Picture 3 – Building 1 Universal Waste Storage Area



Picture 2 – Building 1 Used Oil Storage



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REGION 4  
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4APT-TS

FEB 14 2005

N. Darahyl Dennis  
Remediation Project Manager  
Georgia Power Company  
241 Ralph McGill Boulevard, N.E.  
Atlanta, GA 30308-3374

Dear Mr. Dennis:

The U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the Exide Battery Electrical Substation PCB Site Investigation and Remediation Corrective Action Plan (CAP) dated November 28, 2004. The Exide site CAP was submitted to EPA via e-mail by Scott Glen on February 4, 2005. The Exide site CAP was not submitted under the expedited approval process for the 40 CFR §761.61(a) self-implementing polychlorinated biphenyl (PCB) cleanups. However, EPA decided to handle it as such because: a) the source of PCB contamination is assumed to be electrical equipment that contained  $\geq 50$  part per million (ppm) PCBs; and b) the Georgia Power Company (GPC) proposed to dispose of bulk PCB remediation waste at a state-approved solid waste landfill.

The substation at the Exide Battery site in Atlanta, Georgia measures approximately 20.5-ft. x 27.5-ft. EPA understands that the electrical equipment that was at the site has been removed for reuse or disposal. During the site investigation, GPC collected 52 soil and one concrete sample. Most of the samples were reported as non-detect for PCBs and the maximum PCB concentration was 28.8 ppm. GPC will excavate and dispose of PCB-impacted soil containing PCBs above one ppm. This material will be disposed based on further testing to determine its regulatory status under the Resource Conservation and Recovery Act.

The EPA hereby approves the Exide Battery site CAP pursuant to 40 CFR §761.61(a)(3)(ii). The GPC may proceed with the PCB cleanup subject to the following conditions:

1. The cleanup level for bulk PCB remediation waste (soil and concrete) shall be the *high occupancy areas*  $\leq$  one ppm level in accordance with requirements at 40 CFR §761.61(a)(4).
2. Post-cleanup verification soil samples shall be collected and analyzed in accordance with the requirements of 40 CFR §761.61(a)(6) on five-foot grid centers within the excavation areas.
3. The GPC shall submit a final report to the EPA within 60 days of completion of **all** activities described under this approval. At a minimum, this final report shall include a short narrative of



the project activities, **tabular summaries** of characterization and confirmation sampling analytical results, site maps depicting confirmation sample locations and final PCB concentrations, and an estimate of the total acres remediated. The report shall be submitted to the EPA in an electronic format (e.g., compact disk).

4. The GPC shall comply with the recordkeeping requirements specified at 40 CFR §761.61(a)(9) for activities conducted in accordance with this approval.
5. Once cleanup is underway, any change to the plan must be submitted to the EPA for approval prior to the implementation of the change.

Should you have any questions concerning this matter, please contact Craig Brown of the EPA Region 4 staff at (404) 562-8990.

Sincerely,

A handwritten signature in cursive script, appearing to read "Joanne Benante".

Joanne Benante  
Chief  
Pesticides and Toxic  
Substances Branch

cc: Scott Glenn, GPC

# **Exide Battery Electrical Substation**

## **PCB Site Investigation & Remediation Corrective Action Plan**

**November 28, 2004**

**Prepared for:**

**GEORGIA**



Environmental Affairs Department  
**GEORGIA POWER**  
Post Office Box 4545

241 Ralph McGill Boulevard  
Atlanta, GA 30308

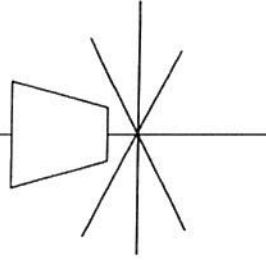
**POWER**

**A SOUTHERN COMPANY**

**Prepared by:**

**sbx technologies, llc.**

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**SBX Job No. 1200-140**



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**Figure 1, Site Location.**

**Figure 2, 2-FT BGS Excavation Limits and Analytical Results.**

## **Appendices**

**Appendix A, Laboratory Analytical Report and Custody Records.**

## SECTION 1 INTRODUCTION

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The Georgia Power Company (GPC) is the operator of the electrical substation located inside the Exide Battery facility at 1246 Allene Avenue Atlanta, Georgia (see Figure 1, Site Location). SBX Technologies, LLC (SBX) was retained by GPC to document the site investigation for the presence of polychlorinated biphenyls (PCBs) and prepare a Corrective Action Plan to remediate the PCB impacted soil inside the electrical substation.

The Exide Battery Substation assessments and Completion Reports (CR) will be implemented and written in accordance with 40 CFR 761, Sampling, Remediation and Disposal of Polychlorinated Biphenyls. To meet the requirements in 40 CFR 761, the horizontal and vertical extent of PCB concentrations in soils must be delineated to background at the Site. Background for PCB's in soils is set at the analytical method detection limit or less (non-detect ND). GPC's final goal is to remove all impacted site soils so that the site soils meet Georgia EPD Regulations for unrestricted use. . A Completion Report will be submitted at the completion of the remediation. A summary of the analytical results is presented in Table 1, Analytical Data Summary.

This Corrective Action Plan summarizes the assessment and planned remediation activities to be performed by GPC to delineate the extent, excavation and disposal of PCB impacted soil identified at the site in accordance with the Toxic Substance Control Act (TSCA) regulatory cleanup-level for bulk PCB remediation.



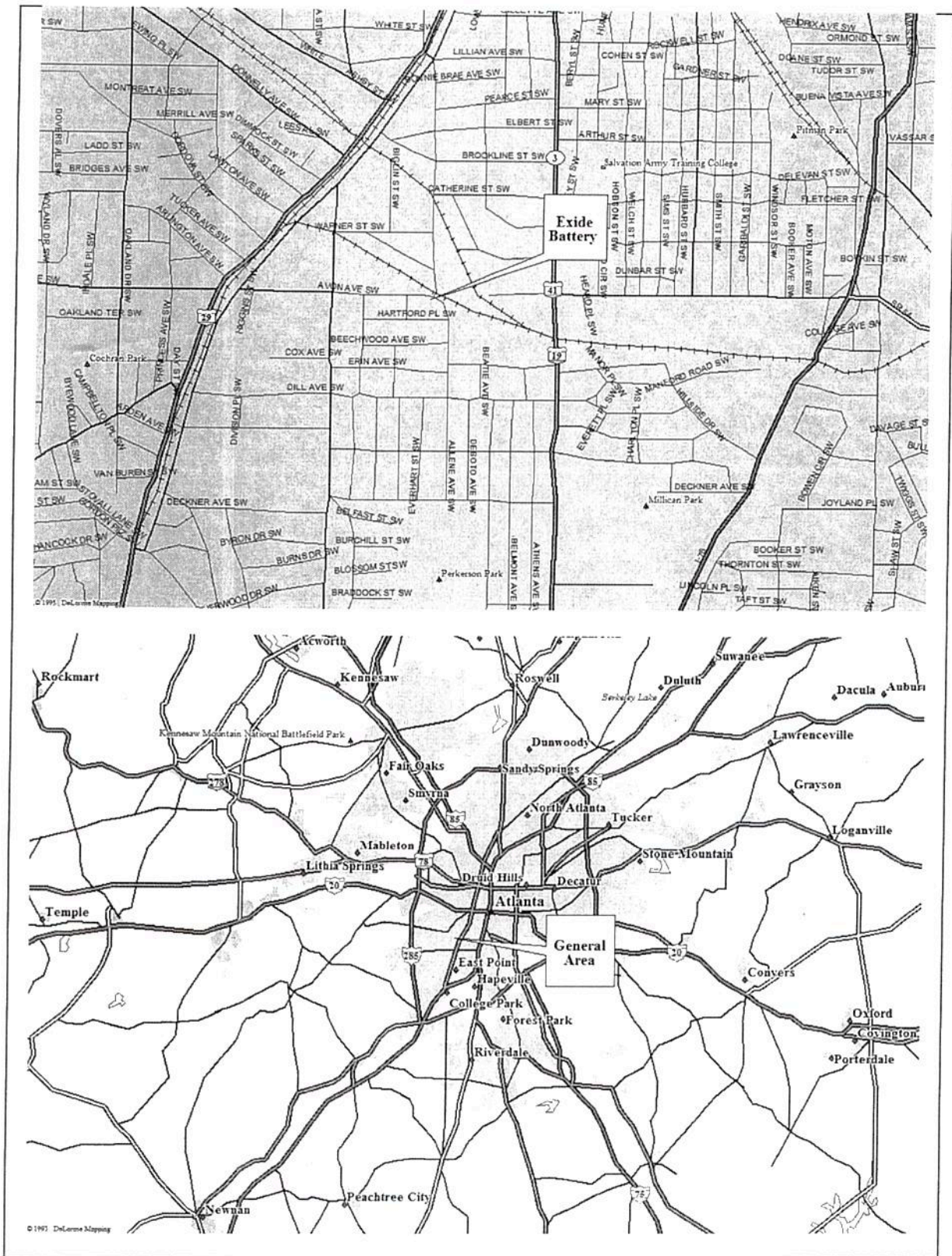


Figure 1

## GPC substationExide Battery Site Location

Table 1  
Analytical Data Summary  
Exide Battery substation

Sample ID	Sample Depth	Collect Date	Result	Units
1	Sample Point @ 0.5	29-Sep-04	28.8	mg/kg
1	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
2	Sample Point @ 0.5	29-Sep-04	8.45	mg/kg
2	Sample Point @ 2.0	4-Oct-04	0.998	mg/kg
3	Sample Point @ 0.5	29-Sep-04	1.66	mg/kg
3	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
4	Sample Point @ 0.5	29-Sep-04	0.689	mg/kg
4	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
5	Sample Point @ 0.5	29-Sep-04	11.7	mg/kg
5	Sample Point @ 2.0	29-Sep-04	ND	mg/kg
6	Sample Point @ 0.5	29-Sep-04	4.33	mg/kg
6	Sample Point @ 2.0	29-Sep-04	ND	mg/kg
7	Sample Point @ 0.5	29-Sep-04	0.555	mg/kg
7	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
8	Sample Point @ 0.5	29-Sep-04	9.21	mg/kg
8	Sample Point @ 2.0	29-Sep-04	ND	mg/kg
9	Sample Point @ 0.5	29-Sep-04	5.91	mg/kg
9	Sample Point @ 2.0	29-Sep-04	ND	mg/kg
10	Sample Point @ 0.5	29-Sep-04	1.33	mg/kg
10	Sample Point @ 2.0	29-Sep-04	ND	mg/kg
11	Sample Point @ 0.5	29-Sep-04	2.79	mg/kg
11	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
12	Sample Point @ 0.5	29-Sep-04	2.85	mg/kg
12	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
13	Sample Point @ 0.5	29-Sep-04	1.84	mg/kg
13	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
Dup-1	Sample Point @ 0.5	29-Sep-04	12.4	mg/kg
14	Sample Point @ 0.5	29-Sep-04	1.03	mg/kg
14	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
15	Sample Point @ 0.5	29-Sep-04	1.11	mg/kg
15	Sample Point @ 0.5	5-Oct-04	2.27	mg/kg
15	Sample Point @ 2.0	4-Oct-04	ND	mg/kg
16	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
17	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
18	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
19	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
20	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
21	Sample Point @ 0.5	4-Oct-04	0.395	mg/kg
22	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
23	Sample Point @ 0.5	4-Oct-04	6.52	mg/kg
23	Sample Point @ 2.0	18-Oct-04	ND	mg/kg
24	Sample Point @ 0.5	4-Oct-04	1.09	mg/kg

Table 1, (Continued)  
Analytical Data Summary  
Exide Battery substation



24	Sample Point @ 2.0	18-Oct-04	ND	mg/kg
25	Sample Point @ 0.5	5-Oct-04	ND	mg/kg
26	Sample Point @ 0.5	5-Oct-04	ND	mg/kg
27	Sample Point @ 0.5	4-Oct-04	0.365	mg/kg
28	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
29	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
30	Sample Point @ 0.5	4-Oct-04	ND	mg/kg
D31	Sample Point @ 0.5	18-Oct-04	ND	mg/kg
D32	Sample Point @ 0.5	18-Oct-04	ND	mg/kg
D33	Sample Point @ 0.5	18-Oct-04	ND	mg/kg
CP1	Sample Point @ 0.5	5-Oct-04	1.49	mg/kg



### **2.1 Site Preparation and Layout**

The Exide Battery electrical substation boundaries are approximately 20.5-ft x 27.5-ft. The substation property is defined by a chain link fence on all four sides.

The substation property will be accessible to GPC and their subcontractor during remedial action activities. The corrective action support area will be situated outside the fence on the asphalt covered section on the North side of the substation. No administration support office trailers are anticipated to be utilized for this remedial action.

### **2.2 Work Area Description**

Based on the analytical results of the assessment sampling, the site was delineated to define the excavation limits. Figure 2, Excavation Map illustrates the horizontal limits of the excavation extending 5-ft to the North, East, and South beyond the fence line and 10-ft to the West. The depth of the excavation will be 2-ft below the ground surface (BGS) throughout the horizontal limits of excavation. The total excavated volume will be approximately 110 (in place) cubic yards (approx. 165 tons) plus the existing concrete footings currently on site.

### **2.3 Excavation and Removal Sequence**

Prior to remedial action operations, the chain linked fence and electrical equipment will be removed. Subsequently, the extent of PCB impacted soil areas identified in Figure 2 will be marked and labeled on the site prior to the commencement of excavation activities.

A small backhoe will be utilized to perform all the excavation, stockpiling and loading activities. The excavated soils will be stockpiled on the asphalt covered area as on the West end of the substation.

## **2.4 Excavation Stability Methods**

The excavation depth area will not extend more than 2 ft-BGS, thus no special sloping will be required nor dewatering measures as groundwater will not be encountered.

## **2.5 Erosion Control**

The substation has a very gentle slope and the excavation area will not require special erosion control methods. A small soil berm may be constructed around the up-gradient perimeter of the open excavation area to prevent precipitation runoff from entering the area if a significant precipitation event is anticipated.

## **2.6 Material Excavation**

### **General**

Excavated materials at the Exide Battery Substation that may be encountered include equipment pads, footings (concrete), gravel and soil. Excavation of non-PCB impacted materials will be kept to a minimum.

### **On-Site Material Handling**

All PCB impacted materials to be excavated are classified as non-hazardous in accordance with TSCA (less than 50 mg/kg) regulations. Due to Exide Battery's manufacturing operations on site, there is the potential that RCRA metals such as lead may be present in the excavated soil.

The excavated material will be stored in separate lined, bermed, and covered stockpiles prior to transportation offsite. Each stockpile areas will be constructed generally as follows:

- An 8-mil plastic sheeting (poly) will be laid on a non-impacted asphalt covered area on the West side of the substation.
- A ring of hay bales will then placed on the poly and underlying poly outside the edges will be wrapped up, over, around and under the hay bales. An entrance into the storage area will be made by leaving out several hay bales on the upgradient side of the hay bale ring. These bales will be replaced at the end of each day, or on days when materials are not being transported.
- A second layer of poly will be placed upon the first, and brought up, over and under the surrounding hay bales.
- The stockpiles will be covered at the end of each day, during precipitation events, and when materials are not being transported in or out of the storage areas, with a third layer of poly that will be wrapped over and under the surrounding hay bales

### **Disposal**

Due to the nature of the manufacturing process at the Exide Battery facility, there is the potential for the presence of lead in the soil. Each excavated section will be stockpiled and a composite sample will be collected in accordance with EPA (Method SW-846) Stockpile Testing Guidelines for TCLP metals analysis prior to disposal. If the TCLP for analytical results for lead are equal to or exceed RCRA limits for hazardous waste, the stockpiled material will be transported to the Waste Management TSCA-approved Subtitle C Landfill in Emelle, Alabama. If the TCLP metals results are less than the RCRA hazardous waste limits, the material will be transported to Waste Management's Subtitle D Landfill facility in Pine Bluff, Georgia. Copies of the waste manifest will be maintained on site during remediation activities. Following completion of the remediation, the manifests will be maintained at the GPC Environmental Affairs Department at 241 Ralph McGill Boulevard, Atlanta, Georgia.

## **Sampling and Analysis Plan**

Sampling and analysis will be performed for remediation verification purposes. Verification soil sampling for total PCBs will be conducted upon removal of PCB-impacted soil as shown in the excavation limits in Figure 2. The verification sampling will be conducted in accordance with the USEPA Mega Rule (40 CFR Part 761.61) to ensure that all soil above 1.0 mg/kg has been removed. In accordance with USEPA Mega Rule verification sampling requirements, a 5-ft x 5-ft sampling grid will be laid out within the base of the excavation.

In order to ensure that all PCB impacted soils are removed, confirmation samples will be collected from the bottom of the excavation pit. A confirmation sample is a composite sample consisting of grab soil samples from up to 9 locations from an area in the excavation pit. Each confirmation sample will be designated a single alphabet letter. If the analytical results of a confirmation sample indicated the presence of PCBs, the excavation will be extended deeper at 1-ft intervals until confirmation sample results were reported below the analytical method detection level (ND). Upon receipt of confirmation sample analytical results indicating a concentration below the cleanup criteria, the excavated areas will be backfilled and compacted with clean soil to the original grade.



# **APPENDIX A**

## **Analytical Laboratory Reports**

Fast Track Approval for Less 50ppm

From: Dennis, N. Darahyl  
Sent: Friday, February 04, 2005 10:39 AM  
To: Williams, Wanda F.; Asti, R. David; Boddie-Duncan, Julia; Glenn, Scott M.; Hobbs, B. J.; Mitchell, Robert W. (Brett); Nix, Dennis R.; Moraitis, Emilia A.; Rickerson, G. C. (Skip); Routman, Rochelle I.  
Subject: RE: Emailing: exide battery.dwg, exide battery cap.doc, exide battery cap.pdf

This is a new requirement

-----Original Message-----

From: Glenn, Scott M.  
Sent: Friday, February 04, 2005 9:57 AM  
To: Dennis, N. Darahyl  
Subject: FW: Emailing: exide battery.dwg, exide battery cap.doc, exide battery cap.pdf

-----Original Message-----

From: Brown.Craig@epamail.epa.gov [mailto:Brown.Craig@epamail.epa.gov]  
Sent: Friday, February 04, 2005 9:52 AM  
To: Glenn, Scott M.  
Cc: Russell.Chris@epamail.epa.gov  
Subject: Re: Emailing: exide battery.dwg, exide battery cap.doc, exide battery cap.pdf

Scott

I've reviewed the PCB cleanup plan for the Exide Battery site substation on the south side of Atlanta. All soil samples collected within the substation contained less than 50 ppm PCBs. Assuming the excavated material is found not to be TC-toxic for lead under RCRA, Georgia Power may proceed with the PCB cleanup action and dispose of the excavated material at a local RCRA Subtitle D landfill, as proposed. I'll follow up with a written approval letter, signed by my Branch Chief.

For future reference, please note that substation cleanup plans should be run through the fast-track TSCA self-implementing PCB cleanup approval process even if there are no hits in soil or concrete at or above 50 ppm PCBs, if: a) the source of contamination is > 50 ppm equipment; and b) Georgia Power wishes to dispose of the < 50 ppm soil at a RCRA Subtitle D landfill.

Thanks

Craig

"Glenn, Scott  
M."  
<smglenn@southernco.com>

02/04/2005  
09:09 AM

To  
Craig Brown/R4/USEPA/US@EPA  
CC  
michael.shannon@exide.com  
Subject  
Emailing: exide battery.dwg, exide  
battery cap.doc, exide battery  
cap.pdf

## Fast Track Approval for Less 50ppm

Your files are attached and ready to send with this message.

Craig,

Good talking with you this morning.

Attached is the Exide CAP for your review.

All soil is below 50 ppm.

The Exide contact is ;

Mike Shannon at 1-610-921-4063

Email at=== michael.shannon@exide.com

Thanks again

Scott

<<exide battery.dwg>> <<exide battery cap.doc>> <<exide battery cap.pdf>>

[attachment "exide battery.dwg" deleted by Craig Brown/R4/USEPA/US]

[attachment "exide battery cap.doc" deleted by Craig Brown/R4/USEPA/US]

[attachment "exide battery cap.pdf" deleted by Craig Brown/R4/USEPA/US]



# Georgia Department of Natural Resources

205 Butler Street, S.E., Suite 1154, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

Hazardous Waste Management Branch

404/656-7802

September 24, 1999

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

COPY

Mr. Jerry G. Cooper  
Director, Operations  
GNB Technologies, Inc.  
3639 Joy Road  
Columbus, Georgia 31906

Re: Risk Assessment Workplan  
Notice of Deficiency

Dear Mr. Cooper:

We have reviewed GNB's Risk Assessment Workplan submitted May 1999 for the Columbus facility. The following comments and deficiencies were noted during the review:

**1. Documentation.**

Please provide references to previous documents or summaries regarding information pertaining to previous spills, past permits requested and received, enforcement actions, past or present underground tanks or piping, locations of injection wells, production wells, or treatment, and storage areas.

**2. Exposure pathways. (Section 2.2.1, pp. 13; Appendix C, pp. 3)**

Please include the exposure pathways per media for the trespasser (e.g., direct ingestion of groundwater and soil, etc.).

Please include the inhalation of fugitive dust as a possible future residential receptor exposure pathway.

**3. Inadequate site maps.**

Please include a legend with the maps explaining the illustrations with regard to the site water-ways, rivers, streams, culverts, vegetation, under-ground and above-ground pipelines, tanks, paved areas, easements, etc.

**4. Dermal absorption factor (DAF). (Appendix C, Section 2.2, pp. 3)**

When chemical-specific information is not available, please use the Region IV RAGs, Supplemental Bulletins suggestion of 0.1% DAF for inorganics as a default value. In addition, an oral absorption efficiency of 20% should be used to convert an administered dose to an absorbed dose when evaluating the dermal route of exposure for inorganics.

**5. Constituents of Potential Concern selection requirements. (Appendix C, Section 4.1, pp. 5)**

The utilization of surrogate toxicity values should be addressed.

The methodology for screening the site constituents should be described in detail.

**6. Exposure Area. (Appendix C, Section 2.3, pp.3)**

The proposed exposure area and spatial averaging principles require more detailed development.

**7. Bioavailability. (Appendix C, Section 2.4, pp. 4)**

Please provide more information regarding the *in vivo* or *in vitro* methodology that may be utilized for characterizing the risk from exposure to lead or arsenic.

**8. Probabilistic Methods. (Appendix C, Section 4.3, pp.6)**

Please consult with GAEPD's Risk Assessment Staff on the use of probabilistic risk assessment methodology.

**9. Detection limits should not exceed risk-based screening values. (Appendix A, Field Sampling Plan, Section 5.0, Procedures, pp. 65)**

Caution should be taken that the detection limits of the constituents do not exceed the screening values presented in the most recent Region III Risk-Based Concentration Table.

**10. Location of background samples may lead to elevated background concentrations of constituents. (Section, 2.0, Figure 2.1)**

Due to high lead deposition along roadways by vehicle emissions, the location of the background samples may convey misrepresentations of the naturally occurring concentrations of lead in the vicinity of the site. Careful attention should be noted when selecting an area to sample for representative background concentrations of naturally occurring analytes.

**11. Risk Characterization detail required. (Attachment 2; Section 2.2.1, pp. 13; Section 3.5, pp. 7)**

Please expand and clarify the risk characterization protocol. The current explanation lacks how the receptor pathway, specific carcinogenic and noncarcinogenic, risks will be presented. In addition, the comparison of the resulting hazard indices and cumulative carcinogenic risk level to the risk ranges warrants clarification. The  $1 \times 10^{-6}$  cumulative risk level and HI of 1 are used as the remediation "triggers". The proposed remediation levels shall in no event exceed a risk level of  $1 \times 10^{-4}$  for carcinogens or a hazard quotient of 3 for non-carcinogens.

**12. Ecological preliminary risk evaluation (PRE).**

It is not GAEPD's policy to request a Work Plan for PREs; however, in the event that the specific SWMU or combined SWMUs in question are of sufficient size or ecological complexity a separate Work Plan for the PRE may be warranted. The following is sample of what should be included in the assessment:

- Results of the preliminary ecological screening evaluation.
  - Receptors (habitats and species) most likely to be exposed to site contaminants.
  - The contaminants of concern (COCs).
  - The ecological effects of concern.
  - Studies needed to characterize actual or potential adverse effects associated with COCs.
- Descriptions of potentially affected habitats with as much detail as possible.
- Maps showing the location of the facility with respect to the reference sites.

Mr. James R. Baker  
May 5, 1999  
Page 3

- Proposed assessment endpoints and associated measurement endpoints for each SWMU.
- Specific receptors named OR the criteria for selecting receptors is transparent.
- Assessment endpoints are expressed in terms of the specific receptor.
- Feeding habits, life history, and habitat preferences of receptors.
- Proposed fate and transport models are discussed, especially food-web models.
- Criteria for determining sampling locations with reference to potentially exposed receptors.

The Georgia Environmental Protection Division cannot approve the Risk Assessment Workplan in its present form. Please submit to EPD within thirty (30) days upon receipt of this letter a revised workplan correcting the deficiencies and addressing the comments. The revised workplan should include the items listed below:

- The certification as specified in 40 CFR 270.11 must be submitted.
- Three (3) final copies of the revised report must be submitted.

Should you have any questions, please contact Michele Burgess or Terri Crosby at 404/656-2833.

Sincerely,



Dave Yarcumian  
Unit Coordinator  
Hazardous Waste Management Branch

DY:tc

cc: Wes Hardegree, Region IV EPA

file: GNB, Columbus

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# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

2002 AUG -9 P 3:08

July 30, 2002

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

COPY

RE: Notice of Deficiency  
Semi-Annual Corrective Action  
Effectiveness Report #28  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your Corrective Action Effectiveness Report #28 for the Columbus, Georgia facility received on June 28, 2002. The following comments and deficiencies were noted during the review.

1. Section 1.5 – The first sentence states that several Part 261 Appendix IX constituents have been detected... This should be changed to several Part 264 Appendix IX constituents. Please revise.
2. Section 2.5 – This section states that during the RFI investigation near Building #2 a possible source for the TCE/PCE contamination was found. No details or information regarding this “possible source” near Building #2 were included in the RFI Quarterly Report. The soil gas survey found some low levels of contamination but nothing was detected in the soil sample that was collected. Please provide more information on the “possible source” in this area and how the current groundwater corrective action system is remediating this source.
3. Section 4.0 – Same as comment on Section 2.5
4. Appendix B – The analytical data sheets list EPA Method 6010 for metals. The current EPA Method is 6010B.
5. Appendix B- The Appendix IX analysis states that analysis for chlorinated dioxins and furans is attached. The analysis for these constituents could not be found in the report.
6. Appendix B – It was stated in the report that the sample that was collected for Appendix IX in April 2002 detected three semi-volatile organics. The laboratory data report for this sample was not found. Both laboratory reports for the April sample and the May resample should be included.

7. Appendix C – The analytical data sheets indicate that EPA Method 7131 was used for analysis of cadmium. The current EPA Method is 7131A. Please ensure that all analysis performed is using the most current EPA Method. Future analysis that is not performed using the current methods may not be acceptable and may require resampling.
8. Documentation should be provided that demonstrates that the analytical laboratories used are State of Georgia certified laboratories.

Please address the above noted comments and deficiencies and submit your response to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA

File: GNB, Columbus

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# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
Carol A. Couch, PhD., Director  
404/656-2833

103 71 -2 A 9 03

January 12, 2004

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

ORIGINAL

RE: Phase 2 RCRA Facility Investigation  
Quarterly Progress Report No. 8  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed the Phase II RFI Quarterly Progress Report No. 8 received on December 4, 2003 for the Columbus, Georgia facility. One comment was noted during the review of the report. We are requesting that downgradient sediment samples be collected from SWMU-24 (Outfall OO2). The samples should be collected downgradient of the previous sample locations at the west end of the culvert under the railroad tracks.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓  
File: GNB, Columbus  
S:\ARDRIVE\PENNY\Exide\phase 2 quarterly rpt no 8.doc



# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Carol A. Couch, PhD., Director

404/656-2833

December 10, 2003

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Semi-Annual Corrective Action  
Effectiveness Report #30  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your response to the NOD on Corrective Action Effectiveness Report #30 received on November 3, 2003 for the Columbus, Georgia facility. The responses adequately address the comments and deficiencies noted in our September 29, 2003 letter. Therefore, Corrective Action Effectiveness Report #30 is approved.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA

File: GNB, Columbus

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# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

David M. Word, Assistant Director

404/656-2833

ORIGINAL

*Ainta S.*

September 29, 2003

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Phase 2 RCRA Facility Investigation  
Quarterly Progress Report No.6  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed the Phase II RFI Quarterly Progress Report No. 6 received on June 4, 2003 for the Columbus, Georgia facility. No comments or deficiencies were noted during the review. Exide should continue to evaluate and sample SWMUs until vertical and horizontal delineation has been completed.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,

*Dave Yardumian*

Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓

File: GNB, Columbus

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R4183037

# Georgia Department of Natural Resource

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 3033

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
David M. Word, Assistant Director  
404/656-283

ORIGINAL

September 29, 2003

*Anita S.*

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Notice of Deficiency  
Semi-Annual Corrective Action  
Effectiveness Report #30  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your Corrective Action Effectiveness Report #30 received on June 30, 2003 for the Columbus, Georgia facility. The following comments and deficiencies were noted during the review.

1. Section 2 – Water Level Contour Maps, Please include only the active/open wells on these figures.
2. Section 2 – Water Level Contours April 2003, Why isn't the drawdown from MW-12D depicted?
3. Section 3 – Several of the isopleth maps incorrectly identify the constituent of concern in the key. Please revise.
4. Section 4 – The resampling of C-2 for dioxins and furans may be performed during the regular Appendix IX sampling next April.

Please address the above noted comments and deficiencies and submit your response to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,

*Dave Yardumian*

Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓  
File: GNB, Columbus  
S:\ARDRIVE\PENNY\Exide\semi annual rpt 30 nod.doc

R4183036



**Georgia Department of Natural Resources**  
2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
Carol A. Couch, PhD., Director  
404/656-2833

2004 FEB 30 A 10:40

February 18, 2004

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

**ORIGINAL**

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Current Human Exposures  
Environmental Indicators CA 725  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) is concerned about potential human exposure to lead contaminated sediment in the ditch from Outfall 004. Since Exide has gained access to the property and has recently collected samples to establish current conditions, EPD would like Exide to submit an interim measures workplan to eliminate unacceptable risk to human health and the environment in the offsite ditch. The remediation of the contaminated soils/sediment in the Outfall 004 ditch is essential to achieving the goal of no current human exposure for the Exide facility by the 2005 GPRPA Environmental Indicators deadline.

In accordance with Hazardous Waste Permit HW-057 (STD)-2 Condition IV.F.1., please submit an interim measures workplan to address the contamination in the Outfall 004 ditch within thirty (30) days of your receipt of this letter.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA  
File: GNB, Columbus  
S:\RDRIVE\PENNY\Exide\Ditch Interim Measures Plan.doc

# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
Carol A. Couch, PhD., Director  
404/656-2833

February 18, 2004

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Current Human Exposures  
Environmental Indicators CA 725  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) is concerned about the indoor air vapor intrusion that may be adversely affecting the residents of the trailer park located to the north and northwest of the facility and the workers of the Exide facility. Monitoring wells OS-2, MW-15, and P-7 have shown levels of volatile organics in the groundwater above the MCLs. The data from these wells indicates that contaminated groundwater is likely under the trailer park. Elevated levels of volatile organics have also been detected in MW-14, which is downgradient of the IBC building. Therefore, in order to ensure that unacceptable exposures to indoor air from vapor intrusion of contaminated groundwater and soil is not occurring, Exide must submit a workplan to evaluate indoor air for the trailer park and the Exide facility within thirty (30) days of your receipt of this letter.

The workplan should be prepared using OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, November 29, 2002. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA  
File: GNB, Columbus  
S:\ARDRIVE\PENNY\Exide\Indoor Air Wkpln request.doc

# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
Harold F. Reheis, Director  
404/656-2833

March 17, 2003

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Semi-Annual Corrective Action  
Effectiveness Report #29  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your response to our Notice of Deficiency (NOD) on the Corrective Action Effectiveness Report #29 for the Columbus, Georgia facility received on February 25, 2003. The response adequately addresses the comments and deficiencies noted in our January 15, 2003 NOD therefore, the report is approved.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓  
File: GNB, Columbus  
S:\RDRIVE\PENNY\Exide\semi annual rpt 29 app.doc

R4 177637



# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

January 9, 2003

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Phase 2 RCRA Facility Investigation  
Quarterly Progress Report No.4  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed the Phase II RFI Quarterly Progress Report No. 4 for the Columbus, Georgia facility received on November 15, 2002. No comments or deficiencies were noted during the review.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓

File: GNB, Columbus

S:\RDRIVE\PENNY\Exide\phase 2 quarterly rpt no 4.doc

R4177634

# Georgia Department of Natural Resource

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30333

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
Harold F. Reheis, Director  
404/656-283

January 15, 2003

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Notice of Deficiency  
Semi-Annual Corrective Action  
Effectiveness Report #29  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your Corrective Action Effectiveness Report #29 for the Columbus, Georgia facility received on December 31, 2002. The following comments and deficiencies were noted during the review.

1. Figure 3.3 – This figure shows the isoplethes for TCE during the July 2002 sampling event. In the figure it appears that there are two separate TCE plumes at the facility. Historical data has shown that this is one plume not two. This figure should be revised to more accurately depict site conditions.
2. Appendix B – The combined groundwater pumping log for August 2002 has a statement by the August 23<sup>rd</sup> reading that there is a note on back. There is no note on the back of the page.
3. Appendix C - In accordance with Permit Condition I.C.4 records of monitoring must include all the information stated in that condition. The laboratory data sheets do not include all the information required by Condition I.C.4.
4. Appendix F – Cadmium concentrations in C-3 and MW-13 have significantly increased over the past several monitoring events. Please evaluate and discuss in the text any possible explanations for these increases.

Please address the above noted comments and deficiencies and submit your response to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA  
File: GNB, Columbus  
S:\ARDRIVE\PENNY\Exide\semi annual rpt 29 nod.doc

R4177633

# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

2003 MAR 13 A 9:15

March 11, 2003

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Phase 2 RCRA Facility Investigation  
Quarterly Progress Report No.5  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed the Phase II RFI Quarterly Progress Report No. 5 for the Columbus, Georgia facility received on March 3, 2003. During the review it was noted that no additional investigation was proposed for Sump #16 even though during a visual inspection of the sump damage was noted. Even though Exide has repaired the damage and the sump currently passes the static water level test additional investigation is required to determine if a release occurred before the sump was repaired.

In addition, contamination has been found in the vicinity of the SWMUs bordering the western property line. Exide has delineated contamination to the property line and elevated levels are still present. In accordance with Hazardous Waste Facility Permit HW-057(STD)-2 Condition IV.D.4.(b) Exide is required to address all releases even beyond the facility property boundary. Therefore, additional delineation of soil contamination along the western property boundary is required. EPD is aware that in the past Exide has been unable to gain access to the neighboring property. However, Exide should continue to pursue access from adjacent property owners in order to complete delineation of the plume. Documentation of Exide's ongoing efforts to gain access should be included in all future RFI quarterly progress reports.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓  
File: GNB, Columbus  
S:\ARDRIVE\PENNY\Exide\phase 2 quarterly rpt no 5.doc

R 4/17/03



# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

June 26, 2002

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Phase 2 RCRA Facility Investigation  
Quarterly Progress Report No.2  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your Phase 2 RCRA Facility Investigation Progress Report No.2 for the Columbus, Georgia facility received on May 13, 2002. The following comments were noted during the review.

1. Section 7 – All constituents detected during the soil gas survey should be reported and discussed not just PCE and TCE.
2. Section 9.2 – Additional sampling on the west side of Building 5 is required in order to horizontally delineate the extent of contamination. In accordance with Condition IV.D.4.b. of your hazardous waste facility permit Exide is required to address all releases which extend beyond the facility property boundary.
3. Section 9.2 – Any additional soil samples collected in the Recycling Plant Maintenance Area should also be analyzed for benzene in addition to lead and arsenic.
4. Section 9.2 – Groundwater samples collected from new monitoring well MW-27 and piezometer P-7 should be analyzed for cis1,2-dichloroethene, 1,1-dichloroethene, xylene, and ethylbenzene in addition to the constituents analyzed for during the routine groundwater sampling program.

Please address the above the comments and submit your response to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby at 404-656-2833.

Sincerely,



Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓

File: GNB, Columbus

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# Georgia Department of Natural Resources

205 Butler Street, S.E., Suite 1162, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

RECEIVED

2001 SEP 18 P 3: 36

August 16, 2001

THIS IS IRAC

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
Environmental Engineer  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Notice of Deficiency  
Semi-Annual Corrective Action  
Effectiveness Report #26  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed the Semi-Annual Corrective Action Effectiveness Report for the Columbus, Georgia facility received on June 29, 2001. During the review, the following comments and deficiencies were noted.

1. The executive summary states that Exide will submit a permit modification to request removing cis-1,2-dichloroethene from the quarterly sampling and analysis. In accordance with Permit Condition III.A.2.e., Exide may request a permit modification to begin compliance monitoring. However, in accordance with Permit Condition III.A.2.f., compliance monitoring will extend throughout the active life of the facility and the post-closure period.
2. Figure 2.1 should be revised to include OS-3.
3. Table 2.10 lists cis-1,2-dichloroethene at 0.0189 mg/l. However, the laboratory analytical data sheet shows the concentration of 0.0189 mg/l for total 1,2-dichloroethene not just cis-1,2-dichloroethene. Please revise.
4. Section 2.4.4 – states that mercury was detected during the annual Appendix IX sampling in C-2 above the concentration observed in the background wells. In accordance with Permit Condition III.A.c.iii., Exide should have resampled C-2 within one month or notified the Director within seven days after the completion of the analysis. Exide must resample C-2 for mercury or add mercury to the groundwater protection standard table in accordance with Permit Condition III.A.3.
5. Table 3.1 has the □ symbol rather than > symbol. Please revise.
6. Appendix B - On several of the pumping logs there is a note "see back" however there is nothing on the back of the page. Please revise.

Ms. Kristen Spangler  
Exide Technologies  
Page 2

7. Appendix C – The following SW-846 Methods used during the Appendix IX testing on C-2 are not the most current SW-846 Methods; 7470 for mercury should be 7470A, 9012 for cyanide should be 9012A, and 9030A for sulfide should be 9030B. Please correct to ensure that the current SW-846 Methods will be used for all future sampling.

Please address the above noted comments and deficiencies and submit your response to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓

File: GNB, Columbus

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# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Carol A. Couch, PhD., Director

404/656-2833

*Amite*

November 18, 2003

**ORIGINAL**

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Comprehensive Groundwater  
Monitoring Evaluation Inspection  
EPA ID#GAD070330576

Dear Ms. Spangler:

On October 15 & 21-22, 2003 representatives of the Georgia Environmental Protection Division (EPD) performed an Comprehensive Groundwater Monitoring Inspection of the ground water monitoring and corrective action system at the Columbus, Georgia facility. During this inspection purging and sampling techniques were observed, three samples were split between Exide and EPD, water level measurements were collected and the wells inspected, and a records review was performed to ensure all records required to be maintained by the Hazardous Waste Facility Permit No. HW-057 (STD)-2 were present. A copy of the analysis from wells OS-1, OS-3, and MW-12D is attached.

No problems were noted during the well inspection and the purging and sampling of the monitoring wells. However, two items were noted during the records review. We requested a new waste analysis sample be collected from the spent carbon canister after it is removed from the treatment system and before it is sent for regeneration. The sample should be analyzed for TCLP volatiles. EPD also noted that on several occasions the detection limit was higher or the analysis was higher than the groundwater protection standard for cadmium in the treated water. This treated water is then injected back into the aquifer through injection well IW-1R. Exide's Underground Injection Control Permit requires that all water that is injected meet the groundwater protection standards in Exide's Hazardous Waste Facility Permit No. HW-057 (STD)-2. Exide expressed that the problem was with the analytical laboratory and has since switched laboratories. Exide must provide EPD a written procedure as to how in the future this situation will be prevented.

Please address the above noted comments and submit your responses to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor at 404-656-2833.

Sincerely,

*Dave Yardumian*

Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

c: Bijan Rahbar, GGS

Doug McCurry, US EPA ✓

File: GNB, Columbus

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# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Carol A. Couch, PhD., Director

404/656-2833

*Anita*

November 18, 2003

ORIGINAL

COPY

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Phase 2 RCRA Facility Investigation  
Quarterly Progress Report No. 7  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed the Phase II RFI Quarterly Progress Report No. 7 received on October 7, 2003 for the Columbus, Georgia facility. No comments or deficiencies were noted during the review. However, based upon the information presented in the quarterly reports and the semi-annual corrective action reports EPD is requesting that additional groundwater samples be collected as part of the investigation of the PCE plume. Additional samples should be collected in the vicinity of Building #3 and the Building #3 loading dock/driveway area as was discussed during the recent CME inspection. Locations and procedures for collecting the additional samples should be included in the next quarterly progress report.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby-Vega at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA ✓

File: GNB, Columbus

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# Georgia Department of Natural Resources

2 Martin Luther King Jr. Dr., Suite 1162 East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
David M. Word, Assistant Director  
404/656-2833

July 24, 2003

Ms. Kristen Spangler  
Environmental Engineer  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Operation and Maintenance Inspection  
for the Ground Water Monitoring System  
EPA ID#GAD070330576

Dear Ms. Spangler:

On July 14-15, 2003 representatives of the Georgia Environmental Protection Division (EPD) performed an Operation and Maintenance Inspection of the ground water monitoring system at the Columbus, Georgia facility. During this inspection water level measurements, purging and sampling techniques were observed, a records review was performed, as well as, a visual inspection of the wells required to be maintained by the Hazardous Waste Facility Permit No. HW-057 (STD)-2.

No violations, comments, or deficiencies were noted during the inspection. Should you have any questions or comments, please contact Penny Gaynor at 404-656-2833.

Sincerely,



Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

c: Doug McCurry, US EPA  
File: GNB, Columbus  
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R4180149



# Georgia Department of Natural Resources

205 Butler Street, S.E., Suite 1162, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

2001 JUL 17 A 7:45

July 12, 2001

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
Environmental Engineer  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

COPY

RE: Notice of Deficiency  
Phase II RFI Workplan  
EPA ID#GAD070330576

Dear Ms. Spangler:

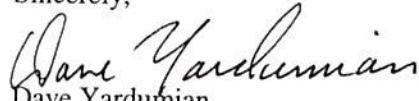
The Georgia Environmental Protection Division (EPD) has reviewed the Phase II RFI Workplan for the Columbus, Georgia facility. The following comments and deficiencies were noted during the review.

1. Section 3.10.5 – Analyzing only the deepest or the highest OVA reading samples for BTEX and PAHs is not acceptable. All samples from this SWMU should be analyzed for lead, arsenic, VOCs, and PAHs. In addition, if contamination is found in the soil, existing monitoring wells/piezometers in the area should be sampled first before new wells should be proposed. Please revise.
2. Section 3.11.4 – All sediment and surface water samples collected from this SWMU should be analyzed for arsenic, selenium, and cadmium, in addition to lead. Please revise.
3. Section 3.12.4 - All soil samples from this SWMU should be analyzed for arsenic, selenium, and cadmium, in addition to lead. Please revise.
4. Section 5.6 – The procedures described in this section do not include VOCs. Please revise this section to include procedures for collecting VOC samples.
5. Appendix A – Section 7.1 – This section includes a paragraph describing the sandpack. The section refers to Appendix C. Appendix C to the field sampling plan could not be located. Appendix C to the workplan does not refer to grain size analysis curves.
6. Appendix C- Section 2.1- This section states the chemicals of concern. Cis- 1,2-dichloroethene was not included in this section. Please revise to include this constituent.

Ms. Kristen Spangler  
Exide Technologies  
Page 2

Please address the above noted comments and deficiencies and submit the revised pages (3 copies) to this office within thirty (30) days of your receipt of this letter. Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby at 404-656-2833.

Sincerely,

A handwritten signature in black ink that reads "Dave Yardumian". The signature is fluid and cursive, with the first name "Dave" and last name "Yardumian" clearly distinguishable.

Dave Yardumian  
Unit Coordinator  
Hazardous Waste Management Branch

c: Doug McCurry, US EPA  
File: GNB, Columbus  
S:\ARDRIVE\PENNY\Exide\NOD on Phase II RFI Workplan.doc

# Georgia Department of Natural Resources

205 Jesse Hill Jr. Dr., S.E., Suite 1162, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833

January 22, 2002

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
EHS Manager  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

COPY

RE: Semi-Annual Corrective Action  
Effectiveness Report #27  
EPA ID# GAD070330576

Dear Ms. Spangler:

The Georgia Environmental Protection Division (EPD) has reviewed your Corrective Action Effectiveness Report #27 for the Columbus, Georgia facility received on December 28, 2001. No comments or deficiencies were noted during the review.

Should you have any questions or comments, please contact Penny Gaynor or Terri Crosby at 404-656-2833.

Sincerely,



Dave Yardumian

Unit Coordinator

Hazardous Waste Management Branch

C: Doug McCurry, USEPA

File: GNB, Columbus

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CONFIDENTIAL

2002 FEB -4 P 3:42

RECEIVED

RA189060



Georgia Department of Natural Resources

205 Jesse Hill Jr. Drive, S.E., Suite 1154 Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Environmental Protection Division

Harold F. Reheis, Director

404/656-2833 404/656-7802

January 29, 2002

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Kristen Spangler  
Environmental Engineer  
Exide Technologies  
3639 Joy Road  
Columbus, Georgia 31906

RE: Hazardous Waste Facility Permit  
Permit No. HW-057(STD)-2

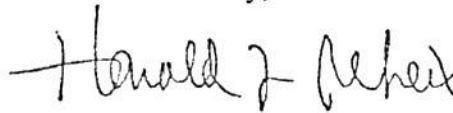
Dear Ms. Spangler:

Please find enclosed the amended Hazardous Waste Facility Permit HW-057(STD)-2 issued to Exide Technologies. This Permit includes the following:

- change in ownership from GNB Technologies, Inc. to Exide Technologies;
- update of sections to reflect replacement of the injection well and piping; and
- update of sections to reflect current monitoring wells.

All sections in your Part B application have been changed per your request. Should you have any questions concerning this Permit, please contact Terri Crosby at 404-656-2833.

Sincerely,



Harold F. Reheis  
Director

HFR:tc  
Enclosure

c: Doug McCurry, EPA Region IV

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RECEIVED

R4189059



State of Georgia  
Department of Natural Resources  
ENVIRONMENTAL PROTECTION DIVISION



AMENDMENT TO  
HAZARDOUS WASTE FACILITY PERMIT

Amendment To  
Permit No. HW-057(STD)-2

Effective Date 01/29/02  
Of Amendment

In accordance with the provisions of the Georgia Hazardous Waste Management Act and the Rules, Chapter 391-3-11, (as amended through November 2000 ), adopted pursuant to that Act, Permit No. HW-057(STD)-2 issued on April 13, 1998 to:

GNB Technologies, Inc.

for the following:

- Storage of 957,600 gallons of hazardous waste in containers in four areas;
- Storage of 588,800 gallons of hazardous waste in sixteen tanks;
- Treatment of hazardous waste in seven tanks and thirteen miscellaneous units; and
- Post-closure care waste piles that were closed as a landfill.

Is hereby amended as follows:

- Change in ownership to Exide Technologies.
- Update Section 7 "Site Conditions" and Section 12 "Post Closure Plan" to reflect replacement of the injection well and piping; relocation and renaming of MW-20 to MW-27.
- Update Appendix A and Appendix O with new information from Corrective Action Effectiveness Report.
- Update Appendix N "Groundwater Sampling and Analysis Plan."
- Update Appendix Z "Contingency Plan."

Reason for Amendment:

Request by Permittee to replace injection well; replace groundwater treatment system effluent piping; relocate one monitoring well; and update current site conditions, ownership, and personnel.

This Permit Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 27 page(s), which page(s) are a part of this Amendment. This Amendment is hereby made a part of Permit No. HW-057(STD)-2 and compliance with this Amendment is hereby ordered.

Director  
Environmental Protection Division





Exide Technologies- Columbus, Georgia, GAD 070330576, is hereinafter referred to as the Permittee.

## SECTION I. GENERAL PERMIT CONDITIONS

### I.A. Scope and Effect of Permit

1. The Permittee is allowed to store, treat, or dispose hazardous waste only in accordance with the conditions of this permit. Any hazardous waste treatment, storage or disposal not authorized in this permit is prohibited. The Permittee must comply with the Georgia Hazardous Waste Management Act and the Rules for Hazardous Waste Management, Chapter 391-3-11, which Rules include certain portions of the Federal Hazardous Waste Regulations (found at 40 CFR 260-264,270, and 124). Where a citation to the Federal Regulations is made in this permit, it refers to the specific regulations adopted by EPD.
2. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
3. Compliance with this permit does not constitute a defense to any action brought by the Director under Section 18, Emergency Powers, of the Georgia Hazardous Waste Management Act, O.C.G.A. § 12-8-75, as amended.
4. Nothing in this permit shall be construed to preclude the institution of any legal action under the Georgia Hazardous Waste Management Act, O.C.G.A. §§ 12-8-81 - 12-8-82, as amended.
5. This permit may be modified, revoked and reissued, or terminated for cause as specified in Rule 391-3-11.11(7) and 40 CFR §§ 270.41, 270.42, 270.43, 270.50(d) and 270.51(a). The filing of a request for a permit modification, variation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability of any permit condition.
6. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

### I.B. Management Requirements

1. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility or of any planned changes in the method of handling the hazardous waste which changes might affect the performance of the permitted facility or result in non-compliance with permit conditions. The Permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility requiring permitting except as provided in 40 CFR 270.42, until:

Permit Number: HW-057(STD)-2  
Exide Technologies - Columbus, Georgia  
GAD 070330576

- (i) The Permittee has submitted to the Director by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
  - (ii)(A) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
  - (B) Within fifteen (15) days of the date of submission of the letter required by paragraph I.B.1(i) of this Permit, the Permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage, or disposal of hazardous waste.
- 2. The Permittee shall maintain at the facility until the expiration or termination of this permit, the following documents and amendments, revisions, and modifications to these documents:
  - (a) Complete copy of this permit and permit application, including all amendments, revisions and modifications
  - (b) Inspection Schedule Log
  - (c) Waste Analysis Plan
  - (d) Operating Log
  - (e) Personnel training documents and records
  - (f) Contingency plan
  - (g) Closure and post-closure plans
  - (h) Cost estimate for facility closure and post closure, and closure and post-closure assurance instrument
  - (i) Proof of financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences.
  - (j) Corrective Action Plan
  - (k) Groundwater Sampling Plan
- 3. All amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Director for approval and permit modification as necessary.
- 4. When the Permittee becomes aware that the Permittee failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit corrected facts or information.
- 5. The Permittee shall at all times properly operate and maintain all facilities which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of a back-up



or auxiliary facility or similar systems only when necessary to achieve compliance with the conditions of this permit.

6. The Permittee may not commence treatment, storage or disposal of hazardous waste on any new or modified portion of the facility or perform corrective action of contaminated groundwater until the Permittee has submitted to the Director by certified mail or hand delivery an application for a permit modification, except as provided in 40 CFR 270.42. The application for a permit modification should include a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit, where appropriate. No changes to the current permit may be implemented until the Director has modified the permit and an executed copy of the modified permit has been received by the Permittee.
7. The Director may require the Permittee to establish and maintain an information repository at any time, based on the factors set forth in 40 CFR §124.33(b). The information repository will be governed by the provisions in 40 CFR §124.33(c) through (f).

I.C. Monitoring and Reporting

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in the most recent editions of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846; or Standard Methods for the Examination of Water and Wastewater. Sampling and analyses of groundwater samples shall be conducted in accordance with methods and procedures acceptable to the Director.
2. The Permittee shall retain all records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit and records of all data used to complete the application for this permit including the certification required by 40 CFR §264.73(b)(9) for a period of at least 3 years from the date of the sample, measurement, report or record. These periods are automatically extended during the course of any unresolved enforcement action regarding this facility and also may be extended at any time at the Director's discretion.
3. The Permittee shall maintain records for all groundwater monitoring wells and any groundwater withdrawal wells, including the associated groundwater surface elevations, for the active life of the facility and for the post closure care period.
4. Records of monitoring information shall include:
  - (a) The date, exact place and time of sampling or measurements
  - (b) The individual(s) who performed the sampling



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- (c) The date(s) analyses were performed
  - (d) The individual(s) who performed the analyses
  - (e) The analytical techniques or methods used; the method of sample preservation; and quality assurance methods including method blanks
  - (f) The results of such analyses
  - (g) The flow directions and flow rates in the uppermost aquifer in accordance with III.A.2.h.
5. The Permittee shall report to the Director or his representative orally within twenty-four (24) hours from the time the Permittee becomes aware of any circumstances resulting from the conditions at the hazardous waste management facility which may endanger human health or the environment or any unauthorized releases from the operation of the facility (including periods of noncompliance), including, but not limited to:
- (a) Release of any hazardous waste, hazardous waste constituent, or hazardous constituent that may cause an endangerment to public drinking water supplies.
  - (b) Release or discharge of hazardous waste, hazardous waste constituent, hazardous constituent, or a fire or explosion which could threaten human health or the environment outside the facility.
  - (c) The description of the occurrence shall include:
    - (i) Name, address and telephone number of the owner or operator.
    - (ii) Name, address and telephone number of facility.
    - (iii) Date, time and type of incident.
    - (iv) Name and quantity of materials involved.
    - (v) The extent of injuries, if any.
    - (vi) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable.
    - (vii) Estimated quantity and disposition of recovered material that resulted from the incident.
6. Within fifteen days of becoming aware of any reportable incident as in Condition I.C.5. above which may endanger human health or the environment, the Permittee shall submit a written report of the incident to include the following:
- (a) Description of occurrence as in Condition I.C.5.(c) above.
  - (b) Cause of occurrence.
  - (c) Period of occurrence, including exact dates and times.
  - (d) Time occurrence expected to continue (if not already corrected).
  - (e) Steps taken or planned to reduce, eliminate, and prevent recurrence.

7. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.
8. The Permittee shall report instances of non-compliance, other than those described in Conditions I.C.5. and I.C.7., semi-annually on July 15 (covering January 1 - June 30) and January 15 (covering July 1 - December 31). The report shall include information as required under Condition I.C.5.(c) for each incident.
9. All reports of other information requested by the Director shall be signed and certified according to the requirements in 40 CFR §270.11.
10. A biennial report must be submitted covering the facility activities during odd number calendar years in accordance with 40 CFR §264.75.

I.D. Responsibilities

1. Right of Entry. The Permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials and other documents as may be required by law to:
  - (a) Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
  - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
  - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
  - (d) Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Georgia Hazardous Waste Management Act, any substances or parameters at any location.
2. Transfer of Permits. This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to 40 CFR §§270.40 and 270.41(b)(2). Before transferring ownership or operation of the facility during its operating life or during its post-closure care period, the Permittee shall notify the new owner or operator in writing of the applicable requirements of 40 CFR Parts 264 and 270.
3. Duty to Comply. The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such non-compliance is authorized by an emergency permit. Any non-compliance with this permit constitutes a violation of the Georgia Hazardous Waste



Management Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application.

4. Duty to Re-apply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 180 days before this permit expires.
5. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense, for a Permittee in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
6. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment or human health resulting from non-compliance with this permit.
7. Duty to Provide Information. The Permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request, to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or, to determine compliance with the permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
8. Anticipated Non-Compliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in non-compliance with permit requirements.
9. Obligation for Corrective Action. The Permittee is required to continue this permit or any other mechanism the Director may approve for any period necessary to comply with the corrective action requirements of the permit.
10. Reporting Planned Changes. Except as provided in 40 CFR 270.42, the Permittee shall give notice to the Director at least thirty (30) days prior to any planned physical alterations or additions to the permitted facility, including any investigative or corrective action activities (including voluntary measures) which may impact any SWMUs, AOCs, and/or other regulated units.

I.E. DEFINITIONS

For purposes of this permit, terms used herein shall have the same meaning as those in 40 CFR Parts 124, 260, 264, and 270, unless this permit specifically provides otherwise. Where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

1. Area of Concern (AOC) for purposes of this permit includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a solid waste



management unit and is determined by the Director to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under 40 CFR §270.32(b)(2) in order to ensure adequate protection of human health and the environment.

2. Contamination for the purposes of this permit refers to the presence of any hazardous waste, hazardous waste constituents, or hazardous constituents in a concentration which exceeds the naturally occurring concentration of that waste or constituent in the immediate vicinity of the facility (in areas not affected by the facility).
3. Corrective Action for prior or continuing releases from solid waste management units, as well as for other releases, for the purposes of this permit shall be any measure necessary to protect human health and the environment for all releases of hazardous waste, hazardous waste constituents, or hazardous constituents from SWMUs or AOCs, regardless of the time which waste was placed into the unit, as required in 40 CFR §264.100 and/or §264.101, and as required under the Georgia Hazardous Waste Management Act §12-8-60, et. seq. Corrective action may address releases to air, soils, surface water, sediment, or groundwater.
4. Hazardous Constituents for the purpose of this permit are those substances listed in 40 CFR Part 261 Appendix VIII and Part 264 Appendix IX "Groundwater Monitoring List".
5. Interim Measures for purposes of this permit are actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.
6. Land Disposal Facility: A facility that uses a surface impoundment, landfill, land treatment or waste pile to manage or dispose of hazardous waste pursuant to §12-8-66 of the Georgia Hazardous Waste Management Act, as amended.
7. Release for the purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste, hazardous waste constituent, or hazardous constituent.
8. Solid Waste Management Unit (SWMU) for the purposes of this permit includes, but is not limited to: any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank (including storage, treatment, and accumulation tanks), container storage unit, wastewater treatment unit including all conveyances and appurtenances used in waste management or stormwater handling, elementary neutralization unit, transfer station, or recycling unit from which hazardous waste, hazardous waste constituents, or hazardous constituents might migrate, irrespective of whether the units were intended for the management of solid and/or hazardous waste. SWMUs do not include one-time accidental spills that are immediately remediated and not associated with a SWMU.

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9. Risk Based Standards for the purposes of this Permit are those soil and groundwater standards approved by the Director with are based upon risk to human health and the environment.
- I.F. Conditions Related to Compliance with General Facility Standards  
(40 CFR Part 264 Subparts A, B, C, D, E, F, G, H, I, J, L, S, and X)
1. The Permittee must follow the procedures and plans described in detail in the permit application dated November 1997, as amended, which are hereby incorporated by reference and include at least the following:

(a)	Process Information	Section 1 and 4
(b)	Waste Analysis Plan	Section 3
(c)	Procedures to Prevent Hazards	Section 5 and 6
(d)	Contingency Plan	Appendix Z
(e)	Personnel Training	Section 9
(f)	Closure and Post-Closure Plans	Section 10 and 12
(g)	Financial Assurance	Section 11
  2. The following activities must be carried out as prescribed in 40 CFR Part 264, Subparts B, C, D, and E, and in accordance with the appropriate Sections of the permit application.

(a)	Security - §264.14(b) and (c)
(b)	Repairs and inspection log - §264.15(c) and (d)
(c)	Operating record - §264.73 and disposition of records - §264.74
(d)	Reports - §264.75 and §264.77
(e)	Annual review of training - §264.16
(f)	General requirements for ignitable, reactive and incompatible wastes - §264.17
(g)	Design and operation - §264.31
(h)	Access to communications or alarm system - §264.34
(i)	Testing and maintenance of equipment - §264.33
(j)	Arrangements with local authorities - §264.37
(k)	Amendment of contingency plan - §264.54
(l)	Maintain aisle space - §264.35
(m)	Required Notices - §264.12(a) and (b)
(n)	Manifest System - §264.70 through §264.72
  3. The following activities must be carried out as prescribed in 40 CFR Part 264, Subparts G and H, and Sections 10 and 12 of the permit application.

(a)	Closure in accordance with approved plan - §264.113
(b)	Amendment of Closure Plan and Notification of Closure - §264.112(b) and (c)
(c)	Disposal or decontamination of equipment - §264.114
(d)	Certification of Closure - §264.115
(e)	Revision of Cost Estimate - §264.142
(f)	Post closure care and use of property - §264.117



- (g) Post closure plan, amendment of plan - §264.118
  - (h) Notice to local land authority and in deed to property - §264.119 and §264.120
  - (i) Financial assurance for post-closure and corrective action - continuous compliance with §264.145 must be maintained by the Permittee for the amount of the cost estimate for post-closure and corrective action as required by §264.144 until released by the Director as provided in §264.145(i)
4. The Permittee must maintain sudden liability coverage of \$1,000,000 for each occurrence and \$2,000,000 annual aggregate until certifications of closure as specified in 264.115 are received by the Director. Liability coverage must be in effect before the Permittee is authorized to manage hazardous waste under this permit. The Permittee must carry out the activities as specified in 264.147.
5. The Permittee must comply with §264.148 whenever necessary.

I.G. Special Conditions Applicable to Entire Facility

1. Waste Minimization. The Permittee shall be required to certify no less often than annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment in accordance with 40 CFR §264.73(b)(9).
2. Land Disposal Restrictions. 40 CFR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage, or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR Part 268. Where the Permittee has applied for an extension, waiver, or variance under this Part, the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.
3. Permitted Waste Identification. The hazardous waste to be stored or treated pursuant to this permit are only those listed in the Part A and Part B application dated November 1997.
4. Closure. The Permittee must notify the Director in writing at least thirty (30) days or as soon as possible prior to the date on which the Permittee expects to begin final closure of the facility or partial closure of any permitted hazardous waste management unit. Within sixty (60) days of completion of any partial closure of the permitted container storage and/or treatment areas, or miscellaneous units, and within sixty (60) days of the completion of final closure, the owner or operator must submit to the Director, by registered mail, a certification that the hazardous waste management unit has been closed in accordance with the approved closure plan. The certification must be signed by an independent registered professional



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engineer. Documentation supporting the independent, registered professional engineer's certification must additionally be furnished to the Director at that time.

5. Operating Record. In accordance with §264.73, the following must be kept in the operating record:
  - a. A description and the quantity of each hazardous waste received and the methods and dates of its treatment and storage at the facility.
  - b. The location of each hazardous waste within the facility and the quantity at each location.
6. Incompatible Wastes. A storage container holding a hazardous waste that is incompatible with any waste stored nearby in other containers, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.
7. Releases. Permittee must handle releases from containers, tanks, and miscellaneous units in accordance with §§264.171, 264.175, 264.193, 264.196, 265.171, 265.193, and 265.196, as applicable.
8. Certifications. The Permittee shall submit certifications, as applicable, from a professional engineer for all hazardous waste management units prior to implementation. The certifications shall include tank installation and tightness, secondary containment, and structural support certifications, as appropriate.

## SECTION II. CONDITIONS FOR PERMITTED UNITS

II.A. General: Permitted storage and treatment activities are expressly limited to the areas delineated in the scale drawing of the Facility (Figures 2-1 and 2-2).

### II.B. Unit Identification

1. Container Storage. The Permittee shall operate four container storage areas as identified on Attachment A. The maximum storage capacity for each area is also provided on Attachment A.
2. Storage Tanks. The Permittee shall operate sixteen hazardous waste management units identified on Attachment A. The maximum storage capacity is also provided on Attachment A.
3. Tank Treatment. The permittee shall operate seven tanks for the treatment of hazardous waste as identified on Attachment A. The maximum treatment capacities for each tank are also provided on Attachment A.

4. Miscellaneous Units. The permittee shall operate thirteen miscellaneous units for the treatment of hazardous waste as identified on Attachment A. The maximum treatment capacities for each miscellaneous unit is also provided on Attachment A.
5. Waste Piles Closed as a Landfill. The Permittee shall maintain one hazardous waste piles closed as a landfill as identified on Attachment A. The Permittee shall perform post-closure care for the waste piles that were closed as a landfill. The waste piles closed as a landfill is located at the west end of the facility and is identified as "Waste Piles Closed as a Landfill" on Figure 2-1 of the permit application.

II.C. Conditions Related to Permitted Units

1. Monitoring and Inspection. The Permittee shall follow the inspection schedule as per Section 6 of the permit application and as required by 40 CFR §264.15.
2. Closure and Post-Closure Care. Closure of all hazardous waste management units shall be performed in accordance with the closure plans presented in Section 10 of the permit application dated November 1997, as amended.
3. Aisle Space. Aisle space within the permitted storage units must be maintained. Six feet of aisle space must be maintained in the Warehouse Storage Area. Two feet of aisle space must be maintained in all other storage areas and within the Industrial Battery Decasing Area.
4. Maintenance. The Permittee shall follow the approved Maintenance Plan guidelines identifying intentional discharge of hazardous waste onto the floor. The Permittee shall report to EPD at least quarterly all intentional releases of hazardous waste to the secondary containment and/or instances where hazardous waste is allowed to remain on the floor for more than one eight or twelve hour shift. The report shall, at a minimum, include a description of the intentional release, the quantity intentionally released, the location of the intentional release and an explanation of why the intentional release could not be contained.
5. Testing. All areas in which the associated groundwater monitoring wells have detected PCE, TCE, or DCE must include these constituents during soil sampling, corrective action and closure activities.
6. Repairs. If the Permittee replaces a component of the tank system to eliminate the source of a leak, that component must satisfy the requirements for new tank systems or components in §264.192 and §264.193, as required.

II.D. Conditions Related to the Trailer Storage Area

1. Storage Requirements. The Permittee must not store roll-off containers in the Trailer Storage Area.

2. Stormwater Retention Pond. The Permittee must perform closure of the Stormwater Retention Pond in accordance with the Closure Plan dated April 21, 1999.
3. Stormwater Control. The Permittee must maintain the structural integrity of the stormwater control dike.

II.E. Conditions Related to the Waste Piles Closed as a Landfill

1. Inspections. The Permittee shall follow the inspection schedule as described in Section 12 of the permit application and as required by §264.15(a). The entire cap must be inspected in accordance with the schedule.
2. Post-Closure. The Permittee shall perform post-closure care of the waste piles closed as a landfill in accordance with the post-closure plan in Section 12 of the permit application, and as required by §264.310.
3. Use of Cap. The Permittee shall maintain the structural integrity of the cap. A Professional Engineer certification must be obtained and submitted to the Director for approval prior to the storage of finished lead blocks, lead ingots, and/or unpasted finished grids on the cap.

SECTION III GROUNDWATER MONITORING AND CORRECTIVE ACTION FOR THE WASTE PILES CLOSED AS A LANDFILL

III.A Groundwater Monitoring

1. Well Location and Construction. The Permittee shall install and/or maintain a ground-water monitoring system to comply with the requirements of 40 CFR §§264.95, 264.97 and 264.100 as specified below:

- (a) The Permittee shall maintain, well marked and in good working order, the following groundwater monitoring wells, and, all groundwater withdrawal and injection wells referenced in the permit application and corrective action documents, or, any additional wells that may be required by Condition III.A.1 (c) of this Permit:

i. Uppermost Aquifer

C-1	5D	9D	16	21
C-2	6D	13	17	22
C-3	7D	14	18	OS-1
C-4	8R	15	19	OS-2
				OS-4

ii. Perched Aquifer



	5S	6S	9S	11S	12S
iii.	<u>Deep Wells</u>				
	DW-2				
iv.	<u>Withdrawal Well</u>				
	PW-1	PW-2	MW11D	MW12D	
v.	<u>Injection Well</u>				
	IW-1R				
vi.	<u>Background Well</u>				
	10R	27			

(b) Groundwater monitoring wells C-2, C-3 and C-4 shall define the point of compliance.

(c) The Permittee shall install additional wells as necessary or as specified by the Director to ensure that, at all times, the current groundwater monitoring system in (a) and (b) above is adequate to assess changes in the rate and extent of any plume of contamination, or to assess the effectiveness of corrective action or to comply with 40 CFR §§264.95, 264.97, 264.99 and 264.100. If changes are required to the groundwater monitoring system through this Section of the permit, the Permittee shall submit a permit modification request following procedures specified in 40 CFR §270.42. Within thirty (30) days of notification that additional wells are required, the Permittee shall submit for approval a plan detailing the modification of the existing monitoring system. This plan shall include, but is not limited to, the following:

- (i) Well construction techniques, including casing types and proposed total depth of well(s);
- (ii) Well development method(s);
- (iii) A complete analysis of well construction materials.
- (iv) A schedule for implementation of the wells.
- (v) Provisions for determining the lithologic character, hydraulic conductivity and grain size distribution for the applicable aquifer unit(s) at the location of the new well(s).

2. Groundwater Monitoring Program. The Permittee shall establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program required under §264.100. Ground-water monitoring shall be conducted in accordance with the requirements of §264.100(d) and as specified below:

- (a) The Permittee shall collect, preserve and analyze all ground-water samples in accordance with procedures stated in Condition III.C.
- (b) The Permittee shall determine background concentrations in upgradient wells 10R or 27 for all parameters specified in the Ground Water Protection Standard Table at least quarterly.
- (c) During the corrective action monitoring period defined by Condition III.A.2.(e), the Permittee shall sample the following wells for the constituents listed according to the following schedule:
  - (i) quarterly:
    - a) at wells C-1, C-2, C-3, and C-4 for trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene.
    - b) at wells 5d, 7d, 8R, 11d, 12d, 13, 14, 15, OS-1, OS-2, and OS-3 for cadmium, lead, trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene.
  - (ii) semi-annually:
    - a) at wells C-1, C-2, C-3, C-4, 6d, 9d, and DW-2, and at any additional wells that may be required by Condition III.A.1.(c) of this Permit for cadmium, lead, trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene.
    - b) at wells 16, 17, 18, 19, 21, and 22 for cadmium and lead.
  - (iii) one of wells C-2, C-3, or C-4 must be sampled for all constituents listed in Appendix IX of 40 CFR Part 264 at least annually. If the Permittee finds Appendix IX constituents in the ground water, above background conditions, that are not identified in the Ground Water Protection Standard Table in Condition III.A.3, then the Permittee may resample within one month and repeat the Appendix IX analysis. If the second analysis confirms the presence of new constituents, the Permittee must report the concentration of these additional constituents to the Director within seven (7) days after the completion of the second analysis and these additional constituents shall automatically be incorporated into the Ground Water Protection Standard Table in Condition III.A.3. If the Permittee chooses not to resample, then the Permittee must report the concentrations of these additional constituents to the Director within seven days after completion of the initial analysis and these additional constituents shall automatically be incorporated into the Groundwater Protection Standard Table in Condition III.A.3.

- (d) The Permittee shall maintain compliance with all corrective action conditions in Section 7 of the permit application or corrective action documents in accordance with the schedule in the approved document.
- (e) The corrective action monitoring period shall begin on the date of issuance of this permit, and shall end on the date of permit modification by the Director. The Permittee may request a permit modification to begin compliance monitoring if the groundwater standard specified in Condition III.A.3. has not been exceeded at any monitoring well specified in Condition III.A.2.(c) for a period of three consecutive years.
- (f) The compliance monitoring period shall begin on the date of permit modification by the Director. The compliance monitoring period shall extend throughout the active life of the facility and the post-closure care period, unless written approval to cease monitoring is granted by the Director.
- (g) The Permittee shall determine the groundwater surface elevation each time ground water is sampled pursuant to §264.97(f).
- (h) The Permittee shall determine the groundwater flow rate and direction in the Uppermost Aquifer at least annually.

3. Ground Water Protection Standard

- (a) The groundwater protection standard as required under §264.92 shall consist of the Ground Water Protection Standard Table which lists the hazardous constituents and their respective concentration limits as required under §§264.93 and 264.94 respectively.
- (b) The groundwater protection standard applies to all hazardous waste, hazardous waste constituent, or hazardous constituent releases as deemed appropriate by the Director to protect public health and the environment.

**Ground Water Protection Standard Table**

<u>Hazardous Constituent</u>	<u>Concentration Limit (mg/l)</u>
<u>Inorganics</u>	
Cadmium	0.005
Lead	0.05



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Organics

Trichloroethylene	0.005
Tetrachloroethylene	0.005
cis-1,2-Dichloroethylene	0.07

- (c) Compliance with the groundwater protection standard will be defined as groundwater monitoring data, obtained under Condition III.A.2, that indicate all constituents listed in the Ground Water Protection Standard Table no longer exceed the groundwater protection standard anywhere within an identified plume of contamination as defined by 264.100 (e) (1 and 2).
- (d) Compliance with the ground water protection standard shall be determined using the statistical procedure specified in Section 7 of the permit application and in accordance with 40 CFR 264.97 (h) and (i).

III.B. Corrective Action Program for Waste Piles Closed as a Landfill

- 1. The Permittee shall conduct the corrective action program set forth in Section 7 of the Part B permit application dated November 1997, as amended, the approved Corrective Action Plan, as well as any subsequent modifications pursuant to Conditions III.E.1 and III.E.2.
- 2. The Permittee shall document the effectiveness of the ground water remediation system in the semi-annual effectiveness reports as required by §264.100(g). Each semi-annual effectiveness report shall include, but is not limited to, the following:
  - (a) Maps depicting ground water flow in the upper aquifer each time water level data is collected;
  - (b) Ground water elevation data tables;
  - (c) Volume of ground water removed and/or treated;
  - (d) Volume of contamination removed;
  - (e) Records described in Section III.D.3 below;
  - (f) Laboratory results from all sampling events occurring within the semi-annual reporting period;
  - (g) Quality assurance/quality control documentation;
  - (h) Concentration isopleths for the contamination plume(s); and
  - (i) An evaluation of the data and the corrective action program.
- 3. The Permittee shall treat, store, and dispose of all contaminated groundwater in accordance with all applicable federal, state and local laws.
- 4. The Permittee shall conduct a corrective action program to remove or treat in place any hazardous constituent that exceed concentration limits in the Ground Water Protection

Standard Table in groundwater between the point of compliance and the downgradient facility property line as required under §264.100(e)(1), and beyond the facility boundary as required under §264.100(e)(2), unless the Permittee can demonstrate to the satisfaction of the Director that:

- (a) Despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such action, or
  - (b) Such action is not necessary to protect human health or the environment.
5. If the groundwater protection standard is met during the compliance period, the Permittee must continue corrective action to the extent necessary to ensure that the groundwater protection standard is not exceeded. Corrective action must continue until the groundwater protection standard has not been exceeded for three (3) consecutive years as required under §264.100(f).

III.C. Sampling and Analysis Procedures. The Permittee shall use the following techniques and procedures when obtaining samples and analyzing samples from the groundwater monitoring wells described in Condition III.A.1.(a),(b) and(c) in order to provide a reliable indication of the quality of the groundwater as required under §§264.97(d) and (e):

- 1. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in Appendix N of the permit application, and all modifications or amendments to Appendix N subsequent to the date of the permit application.
- 2. Samples shall be analyzed according to the procedures specified in Appendix N of the Part B permit application or in the current EPA Manual SW-846 using whichever procedure is more recent at the time of analysis.
- 3. Samples shall be tracked and controlled using the chain of custody procedures specified in Appendix N of the permit application.

III.D. Reporting, Recordkeeping, and Response

- 1. The Permittee shall enter all monitoring, testing, and analytical data obtained pursuant to Section III of this permit into the operating record, as required by §264.73(b)(6).
- 2. The Permittee shall submit a report to the Director on the effectiveness of the corrective action program semi-annually as required by §264.100(g) to include all monitoring, testing and analytical data obtained under Conditions III.A. and III.B.
- 3. Records of ground water monitoring information shall include:
  - (a) The date, exact place and time of sampling or measurement,



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- (b) The individual(s) who performed the sampling,
- (c) The depth to the ground water surface measured to the nearest 0.01 foot,
- (d) The depth to the well bottom measured to the nearest 0.01 foot,
- (e) The amount of water purged from the well,
- (f) The temperature, pH, turbidity, and specific conductance of the sampled ground water at each well,
- (g) Completed chain-of-custody forms,
- (h) The date(s) analyses were performed,
- (i) The individual(s) who performed the analyses,
- (j) The analytical techniques or methods used; the method of sample preservation; and the quality assurance methods,
- (k) The results of such analyses.

### III.E. Permit Modification

1. If the Director or the Permittee at any time determines that the corrective action program no longer satisfies the requirements of 40 CFR 264.100 or Condition III.B for releases of hazardous waste, hazardous waste constituents, or hazardous constituents that originate from the regulated units, the Permittee must within ninety (90) days submit an application for a permit modification to make any appropriate changes in the program. Such application shall be made in accordance with §§ 270.41 and 270.42.
2. If the Permittee meets or exceeds the requirements of §264.100 and meets the groundwater protection standard at the point of compliance and throughout the plume of contamination for three (3) consecutive years the Permittee may submit an application for a permit modification pursuant to §§270.41 and 270.42 to terminate corrective action and establish an alternate groundwater monitoring program.

III.F. Duty of Permittee. The Permittee shall assure that groundwater monitoring and corrective action measures necessary to achieve compliance with §264.100 and the ground-water protection standard are taken during the compliance period.

## SECTION IV. CORRECTIVE ACTION FOR RELEASES FROM SOLID WASTE MANAGEMENT UNITS AND OTHER RELEASES

### IV.A Applicability

The conditions of this Section apply to the determination of the need for subsequent implementation of corrective action for releases from all solid waste management units (SWMUs) and areas of concern (AOCs) contained within the facility property boundary, as required by §264.101(a) and 12-8-66 of the Georgia Hazardous Waste Management Act, and those extending beyond the facility property boundary, as required by §264.101(c). The requirements of this Section apply specifically to the SWMUs and AOCs identified by the RCRA Facility Assessment Report (RFA) and any additional SWMUs or AOCs discovered during the course of future groundwater monitoring, on-going field



investigations, environmental audits, or other means after the date of issuance of this permit. The SWMUs and AOCs are identified in Attachment B. Corrective action is required for any releases of hazardous waste, hazardous waste constituents, or hazardous constituents regardless of whether or not the releases were from a solid waste management unit.

IV.B. Notification and Assessment Requirements for Newly Identified SWMU's and AOC's

1. The Permittee shall notify the Director in writing within thirty (30) calendar days of discovery, of any additional SWMUs and/or AOC's as discovered under Condition IV.A. The notification shall include, at a minimum, the location of the SWMU and/or AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc).
2. The Permittee shall prepare a SWMU Assessment Report (SAR) for each additional SWMU and/or AOC discovered subsequent to issuance of this permit which is known or suspected to have releases of hazardous waste, hazardous waste constituents or hazardous constituents to the environment. The SAR shall be submitted within thirty (30) days of discovery of a new SWMU or AOC. The report must also include, at a minimum, the following information for each SWMU or AOC:
  - (a) Type of unit;
  - (b) Location of each unit on a topographic map of appropriate scale such as required under § 270.14(b)(19);
  - (c) General dimensions, capacities and structural description of the unit(s) (supply and available plans/drawings);
  - (d) Function of unit;
  - (e) Dates that the unit was operated;
  - (f) Description of the wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.
  - (g) Description of any known releases or spills (to include ground water data, soil analyses, and/or surface-water data).
3. Based on the contents of the SAR, the Director shall determine the need for further investigations at the SWMUs and/or AOCs covered in the report. If the Director determines that such investigations are needed, the Permittee shall be required to prepare or amend the RFI Work Plan for such investigations as outlined in Condition IV.D.1.

IV.C. Notification Requirements for Newly Discovered Releases at Previously Identified SWMUs or AOCs

1. The Permittee shall notify the Director in writing of any newly discovered release(s) of hazardous waste, hazardous waste constituents, or hazardous constituents discovered during the course of ground water monitoring, field investigations, environmental audits, or other means, within thirty (30) calendar days of discovery. Such newly discovered releases may be

from SWMUs or AOCs identified in Condition IV.A or SWMUs or AOCs identified in Condition IV.B.1 for which further investigation under Condition IV.B.3 is not required.

2. If the Director determines that further investigation of the SWMUs or AOC is needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.D.1.

#### IV.D RCRA Facility Investigation (RFI)

1. The Permittee shall complete and submit an RFI Work Plan for:
  - (a) SWMUs and/or AOCs identified in Condition IV.A. requiring investigation - This workplan shall be submitted within ninety (90) days of the effective date of this permit.
  - (b) SWMUs or AOCs identified pursuant to Condition IV.B. and IV.C. as requiring investigation - This workplan shall be submitted no later than ninety (90) days after the notification by EPD pursuant to Condition IV.B.3 and IV.C.2.
2. The RFI Workplan(s) required by Condition IV.D.1. shall include a schedule of implementation and report submittal and a description of the specific actions necessary to determine the nature and extent of releases identified in the SAR required by Condition IV.B.2, including but not limited to potential migration pathways for those releases (e.g., air, land, surface water, and ground water), actual or potential receptors and applicable background concentrations. The Permittee must provide sufficient justification that migration through a potential pathway is not included in the plan. Such deletions are subject to the approval of the Director. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with §264.101(c).
3. Upon approval by the Director of the RFI Work Plan(s) required by Condition IV.D.1, the Permittee shall conduct the RFI in accordance with the schedule contained in the approved Work Plan.
4. RFI Reports
  - (a) If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Director with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified in the approved RFI Work Plan. The Progress Reports shall contain the following information at a minimum:
    - (i) A description of the portion of the RFI completed;
    - (ii) Summaries of findings;



- (iii) Summaries of any deviations from the approved RFI Work Plan during the reporting period;
    - (iv) Summaries of all contacts with local community public interest groups or State government;
    - (v) Summaries of any problems or potential problems encountered during the reporting period;
    - (vi) Actions taken to rectify problems;
    - (vii) Changes in relevant personnel; and
    - (viii) Projected work for the next reporting period.
  - (b) The Permittee shall complete and submit the RFI report(s) in accordance with the schedule contained in the RFI Workplan required by Condition IV.B.3. The reports shall provide a summary of all activities undertaken during the RFI(s) to implement the approved plans. The reports shall provide a complete description of the nature and extent of all releases identified during the RFI(s) including sources, migration pathways, actual or potential receptors and applicable background concentrations. The RFI reports shall address all releases which extend beyond the facility property boundary unless the Permittee demonstrates to the Director's satisfaction that, despite the Permittee's best efforts, the Permittee was unable to obtain permission to undertake actions required by the plans.
5. The Director shall review the RFI Report(s) required by Condition IV.D.4., and upon determination that each report is complete, shall notify the Permittee of the need for further investigative actions and/or the need for corrective action required under §264.101(a), §264.101(c) of the Georgia Rules for Hazardous Waste Management, and §12-8-71(b) of the Georgia Hazardous Waste Management Act.

#### IV.E. Corrective Action Plan (CAP)

1. The Permittee shall submit a Corrective Action Plan (CAP) in accordance with the schedule to be determined by the Director. The Permittee will be notified of the schedule by written notice. The CAP must include a description of the corrective measures to be taken at each SWMU and/or AOC, a schedule of implementation and completion, a cost estimate for completion of corrective action, and financial assurance as required by 40 CFR §264.101(b).
2. Upon approval by the Director of any CAP required by Condition IV.E.1, the Permittee shall implement any required corrective action in accordance with the schedule in the approved CAP.
3. If corrective action is required through Condition IV.E.1, the Permittee shall apply for a permit modification pursuant to 40 CFR 270.42 to incorporate the plan into the permit.



IV.F. Interim Measures (IM)

1. IM Work Plan

- (a) Upon notification by the Director, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC which the Director determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in IV.F.1.b. Such interim measures may be conducted concurrently with investigations required under the terms of this permit. The Permittee may initiate IM by submitting an IM Work Plan for approval and reporting in accordance with the requirements under Condition IV.F.
- (b) The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
- (c) The IM Work Plan must be approved by the Director, in writing, prior to implementation.

2. IM Implementation

- (a) The Permittee shall implement the interim measures in accordance with the schedule contained in the approved IM Work Plan.
- (b) The Permittee shall give notice to the Director at least fifteen (15) days prior to any planned changes, reductions or additions to the IM Work Plan.
- (c) If corrective action required by §264.101 and/or Condition IV.E. is achieved through IM, the Permittee shall apply for a permit modification pursuant to §270.42(c) to incorporate the IM into the permit as the final corrective action.

3. IM Reports

- (a) If the time required for completion of interim measures is greater than one year, the Permittee shall provide the Director with progress reports at intervals specified in the approved Work Plan. The Progress Reports shall contain the following information at a minimum:

- (i) A description of the portion of the interim measures completed;
  - (ii) Summaries of any deviations from the IM Work Plan during the reporting period;
  - (iii) Summaries of any problems or potential problems encountered during the reporting period;
  - (iv) Projected work for the next reporting period; and
  - (v) Copies of laboratory/monitoring data.
- (b) Within forty-five (45) days of completion of IM, the Permittee shall complete and submit to the Director an IM report. The report shall provide the following information at a minimum:
- (i) A description of interim measures implemented;
  - (ii) A summary of all data or other information obtained during implementation of interim measures; and
  - (iii) A summary of the effectiveness of the interim measures in achieving the objective of containing, removing and/or treating contamination resulting from the release of hazardous constituents from a SWMU in order to protect human health and the environment.
  - (iv) A summary of all problems encountered during the interim measures implementation.
  - (v) Copies of all relevant laboratory/monitoring data.

#### IV.G. Schedules of Compliance

1. All workplans and schedules required to be submitted pursuant to this permit shall be subject to approval by the Director prior to implementation. In the event of the Director's disapproval (in whole or in part) of any workplan required by this permit, the Director shall specify any deficiencies to the Permittee in a Notice of Deficiency (NOD) letter. The Permittee shall modify the plan to correct the deficiencies within sixty (60) days of the Permittee's receipt of the NOD or explain why the requested change was not made. The modified workplan, including any explanations, shall be submitted to the Director in writing for review. Upon approval, the Permittee shall implement all workplans and schedules as written.
2. The results of all plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Director based on the Permittee's demonstration that sufficient justification for the extension exists.

#### IV.H. Reporting, Recordkeeping, and Response

1. All work plans and schedules shall be subject to approval by the Director prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations and guidance. The permittee shall

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revise all submittals and schedules as specified by the Director. Upon approval the Permittee shall implement all work plans and schedules as written.

2. If the Director or the Permittee at any time determine that any investigation, corrective action plan or interim measure no longer satisfy the requirements of 40 CFR 264.101 or this permit for prior or continuing releases of hazardous waste, hazardous constituents or hazardous waste constituents from SWMUs, the Permittee must submit an amended plan to the Director within sixty (60) days of such determination.
3. The Permittee shall enter all monitoring, testing and analytical data obtained pursuant to the conditions of this permit in the operating record, as required by 40 CFR 264.73(b)(6).
4. All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Section shall be maintained at the facility during the term of this permit, including any reissued permits.
5. All plans and schedules required by the conditions of this Section are, upon approval by the Director, incorporated into this Section by reference and become an enforceable part of this permit. Any non-compliance with such approved plans and schedules shall be termed non-compliance with this permit.
6. Failure to submit the information required in this Section, or falsification of any submitted information, is grounds for termination of this permit. The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Director required in this Section are signed and certified in accordance with 40 CFR 270.11.



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## ATTACHMENT A PERMITTED UNITS

PROCESS CODE	UNIT	PROCESS TOTAL AMOUNT	ALTERNATIVE CAPACITY
<i>Waste Piles Closed as a Landfill (Old Facility)</i>			
D80	Closed Waste Piles	2.3 acre-feet	NA
<i>Container Storage</i>			
SO1	Inside Container Storage	32,340 gallons	600.7 tons
SO1	Dry Plant Scrap Storage	7,200 gallons	163.3 tons
SO1	Warehouse Container Storage	636,840 gallons	12,103 tons
SO1	Trailer Storage	280,500 gallons	3,187.5 tons
<i>Tanks</i>			
SO2	Settler Overflow Tank	8,000 gallons	36.7 tons
SO2	Filtered Acid Tank No. 1	10,000 gallons	45.9 tons
SO2	Filtered Acid Tank No. 2	10,000 gallons	45.9 tons
SO2	Filtered Acid Tank No. 3	20,000 gallons	91.8 tons
SO2	Paste Thickening Unit	27,000 gallons	163.2 tons
TO1	Desulfurization Tank No. 1	103,214 gallons/day	33,000 gallons/206.5 tons
TO1	Desulfurization Tank No. 2	103,214 gallons/day	33,000 gallons/206.5 tons
TO1	Desulfurization Tank No. 3	103,214 gallons/day	33,000 gallons/206.5 tons
SO2	Filtered Sulfate Tank	20,000 gallons	100.1 tons
SO2	Sulfate Storage Tank No. 1	180,000 gallons	900.7 tons
SO2	Sulfate Storage Tank No. 2	180,000 gallons	900.7 tons
TO1	pH Adjustment tank	116,592 gallons/day	4,500 gallons/22.5 tons
TO1	Primary Clarifier	116,906 gallons/day	20,000 gallons/100.1 tons
TO1	Reactor No. 1	116,870 gallons/day	4,500 gallons/22.51 tons
TO1	Reactor No. 2	116,906 gallons/day	4,500 gallons/22.50 tons
SO2	Sludge Holding Tank	14,000 gallons	70.07 tons

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PROCESS CODE	UNIT	PROCESS TOTAL AMOUNT	ALTERNATIVE CAPACITY
SO2	Decant/Filtrate Tank	3,000 gallons	15.0 tons
SO2	Polypropylene Wash Tank	500 gallons	2.09 tons
SO2	Sump Collection Tank No. 1	33,000 gallons	137.6 tons
SO2	Sump Collection Tank No. 2	33,000 gallons	137.6 tons
SO2	Sump Collection Tank No. 3	8,000 gallons	33.4 tons
TO1	Oxidation Tank No. 1	28,800 gallons/day	105.9 tons
TO1	Oxidation Tank No. 2	28,800 gallons/day	7.0 tons
<b>Miscellaneous Units</b>			
TO4	Industrial Battery Decasing	15 tons/hour	4.5 tons
TO4	Hammermill	55.13 tons/hour	463,092 tons/year
TO4	Acid Filter Press	4.9 tons/hour	41,160/year or 5 cubic feet of cake volume
TO4	Desulfurization Filter Press No. 1	40.36 tons/hour	339,024 tons/year or 90 cubic feet of cake volume expandable to 120 cubic feet
TO4	Desulfurization Filter Press No. 2	40.36 tons/hour	339,024 tons/year or 90 cubic feet of cake volume expandable to 120 cubic feet
TO4	Old Desulfurization Filter Press	80.72 tons/hour	678,048 tons/year or 180 cubic feet of cake volume expandable to 240 cubic feet
TO4	Sodium Sulfate Treatment Filter Press	1,020 pounds/hour	4,284 tons/year or 30 cubic feet of cake volume
TO4	Material Feed Hopper No. 1	15.36 tons/hour	625 tons
TO4	Material Feed Hopper No. 2	15.36 tons/hour	625 tons
TO4	Material Feed Hopper No. 3	15.36 tons/hour	625 tons
TO4	Reverb Slag Hopper	2.3 tons/hour	400 tons
TO4	Rotary Dryer	43.3 tons/hour	363,720 tons/year
TO4	Mitchell Hopper	40 tons/hour	336,000 tons/year

SO1 Storage in Containers  
 SO2 Tank Storage  
 SO3 Waste Pile Storage

TO1 Tank Treatment  
 TO4 Other Treatment

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## ATTACHMENT B SOLID WASTE MANAGEMENT UNITS

Unit ID	Name
SWMU-1	Contaminated Soil Underneath Waste Piles
SWMU-2	Dross storage area in alloy department
SWMU-3	Blast furnace slag storage area
SWMU-4	Wastewater treatment unit and appurtenances used in waste management
SWMU-5	All transfer lines used to transport waste to the wastewater treatment plant
SWMU-6	All sumps used to collect waste
SWMU-7	Concrete Stormwater Collection Pond
SWMU-8	Lined Detention Pond at the Southwest Corner of Property
SWMU-9	Collection Pond and Trailer Storage Area
SWMU-10	Solid and Hazardous Waste Loading/Unloading Areas
SWMU-11	Southeast Soil Contamination
SWMU-12	Stormwater Drainage Ditch
SWMU-13	Formation Department Conveyor Trench
SWMU-14	RRD Baghouse Area
SWMU-15	Tank Impoundment Area and Associated Permitted Units
SWMU-16	Lead Oxide Release Area
SWMU-17	Spill Associated with Oxidation Tank Effluent Hose
SWMU-18	RMPS Building and Associated Permitted Units
SWMU-19	Dry Area Building and Associated Permitted Units
SWMU-20	Warehouse Container Storage Area
SWMU-21	Underground Piping Used to Convey Storm, Process, and Wastewater
SWMU-22	Recycling Plant Maintenance Area
SWMU-23	Less than 90 day Storage and Satellite Accumulation Locations
SWMU-24	Stormwater Outfall 002
SWMU-25	Asphalt Paving North of WWTP

SWMUs are listed in the Part B permit application on Table 7-11 and identified on Figures 2-8, 2-8a, and 2-9.